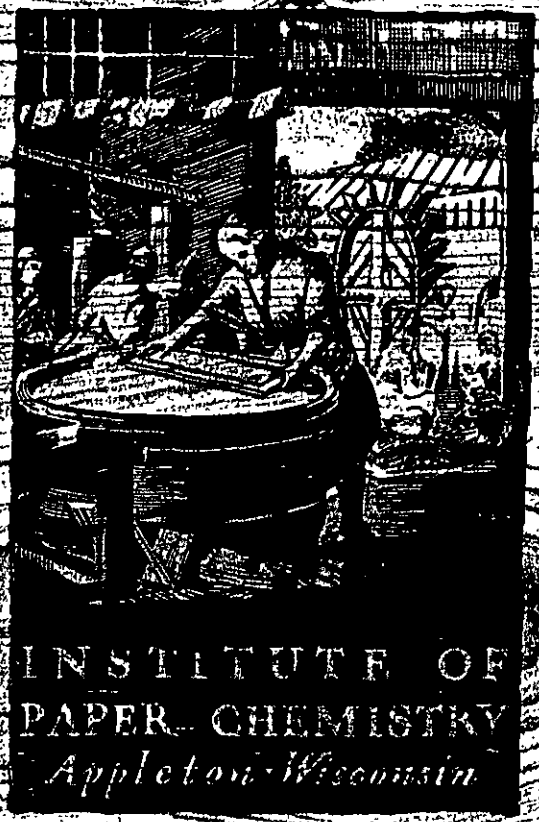


CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 54

to

FOURDRINIER KRAFT BOARD INSTITUTE

January 1, 1952

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

CONTINUOUS BASELINE STUDY

Project 1108-B

Progress Report 54

to

FOURDRINIER KRAFT BOARD INSTITUTE, INC.

January 1, 1952

THE INSTITUTE OF PAPER CHEMISTRY

Appleton, Wisconsin

In conjunction with the F.K.I. Continuous Baseline Study, ninety-seven different sample lots of 42-lb. Fourdrinier kraft linerboard were submitted by eleven different F.K.I. mills to The Institute of Paper Chemistry for testing during the period December 1 through December 31. In addition to the 42-lb. kraft linerboard, six samples of special drum stock were also submitted for evaluation by one of the participating mills. The results on the special stock are tabulated separately in this report. A tabulation of the number of samples classified according to mill may be seen in Table I.

TABLE I

DISTRIBUTION OF 42-LB. LINERBOARD SAMPLES

Mill Code	Samples Submitted
A	12
B	16
C	8
D	11
E	0
F	11
G	2
H	11
I	4
J	8
K	0
L	6
M	8
	97

These sample lots were tested for basis weight, caliper, bursting strength, G. E. puncture, and Elmendorf tear. The average strength results for each mill may be seen in Table II and are graphically presented in Figures 1 to 6. In addition to a comparison of the mill averages for the various tests, Table II also shows the current F.K.I. averages, the cumulative F.K.I. averages, and the F.K.I. indexes. The cumulative F.K.I. average includes all the results up to but not including the current period; the current period in the case of this report is December 1 through December 31. The F.K.I. indexes are obtained as follows:

$$\frac{\text{current F.K.I. average}}{\text{cumulative F.K.I. average}} \times 100 = \text{F.K.I. index (\%)}$$

The F.K.I. index provides a ready means of comparing the current quality with previous results. For example, the current F.K.I. average basis weight is 43.2 lb., and the cumulative F.K.I. average basis weight is 43.1 lb. Hence, the index for basis weight determined in per cent as indicated above is 100.2. This signifies that the current average basis weight is higher than the cumulative average, which in this case covered the period from July 25, 1947, through November 30, 1951.

A comparison of the results in Table II and Figure 1 shows that the average basis weight results for all mills conform to the 42-lb. specification set forth in Rule 41. Mill B has the highest average basis weight, it being 44.4 lb. or approximately 5.7% higher than the 42-lb. specification. On the other hand, Mill G has the lowest average basis weight, it being 42.0 lb., the same as the 42-lb. specification.

The amount by which the mills vary from the 42-lb. specification is as follows:

Mill Code	Per Cent
A	+2.6
B	+5.7
C	+3.1
D	+3.3
E	—
F	+2.9
G	0
H	+3.3
I	+2.4
J	+1.9
K	—
L	+2.9
M	+3.6

A comparison of the average basis weight data for the previous period with the current F.K.I. average indicates that the basis weight results have remained the same.

A comparison of the average caliper values for the various mills (see Figure 2) shows that the mill averages vary from a low of 12.3 for Mill H to a high of 14.4 for Mill M, the average being 13.4 which is somewhat lower than the cumulative average of 14.1.

The average bursting strength values obtained for each mill are presented graphically in Figure 3. It may be observed that the average bursting strength values for the various mills range from a low

of 102 for Mills F and G to a high of 109 for Mills I and L. The current F.K.I. average bursting strength is 106, the same as the cumulative average.

The data of Table II and Figure 4 show that the average G. E. puncture result for all mills is 36 units. Mill F has the highest G. E. puncture average, 41 units, and Mill J has the lowest average, 31 units. The current F.K.I. average for G. E. puncture of 36 units is the same as the cumulative F.K.I. average.

A graphic comparison of the Elmendorf tear results for the various mills is given in Figures 5 and 6. The data of Table II show that Mill D has the highest average machine direction tear value and Mill G the lowest. Mill F has the highest average cross-machine direction tear value, whereas Mill G has the lowest value. It may be noted that the current F.K.I. average machine and cross-machine direction tear results are lower than the cumulative averages.

A comparison of the F.K.I. indexes indicates that, for the current period, the current F.K.I. averages for caliper and Elmendorf tear are lower than the respective cumulative F.K.I. averages, whereas the current F.K.I. average for basis weight is higher than the cumulative F.K.I. average, and those for bursting strength and G. E. puncture are the same.

In order to compare the variation within a given mill, the test results for each particular mill have been tabulated in Tables III to XV for Mills A to M, respectively. In addition to the current and cumulative averages, the mill factor and mill index are given for each

mill. The cumulative mill average is the average test result obtained on the samples submitted by the particular mill up to, but not including, the current average. The mill factor and the mill index are obtained as follows:

$$\frac{\text{current mill average}}{\text{cumulative mill average}} \times 100 = \text{mill factor } (\%)$$

$$\frac{\text{current mill average}}{\text{cumulative F.K.I. average}} \times 100 = \text{mill index } (\%)$$

The mill factor and the mill index serve as a ready means for comparing the current mill results either with the previous results for that particular mill or with the cumulative F.K.I. results. As the test data accumulate, the factors and indexes acquire added significance. The reports also contain a comparison of the test data obtained at the mills with test data obtained at The Institute of Paper Chemistry.

The results obtained on the special drum stock may be seen in Table XVI.

It may be noted in Tables III through XVI that the data have been separated on the basis of the sheet finish. The summarized results for the mills which submitted sample lots during the current period are as follows:

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
A	12[a]		
B	16[a]		
C	8		
D	8	3	
E[b]	6		

(Continued on next page)

Mill Code	No. of Sample Lots W.F.	D.F.	Misc.
F	8		3[c]
G	2		
H	11[a]		
I	4[a]		
J			2[c], 6[d]
L			6[c]
M	5	3	

[a] One side only
[b] Drum linerboard
[c] Sheet finish not reported
[d] Semi-water finish

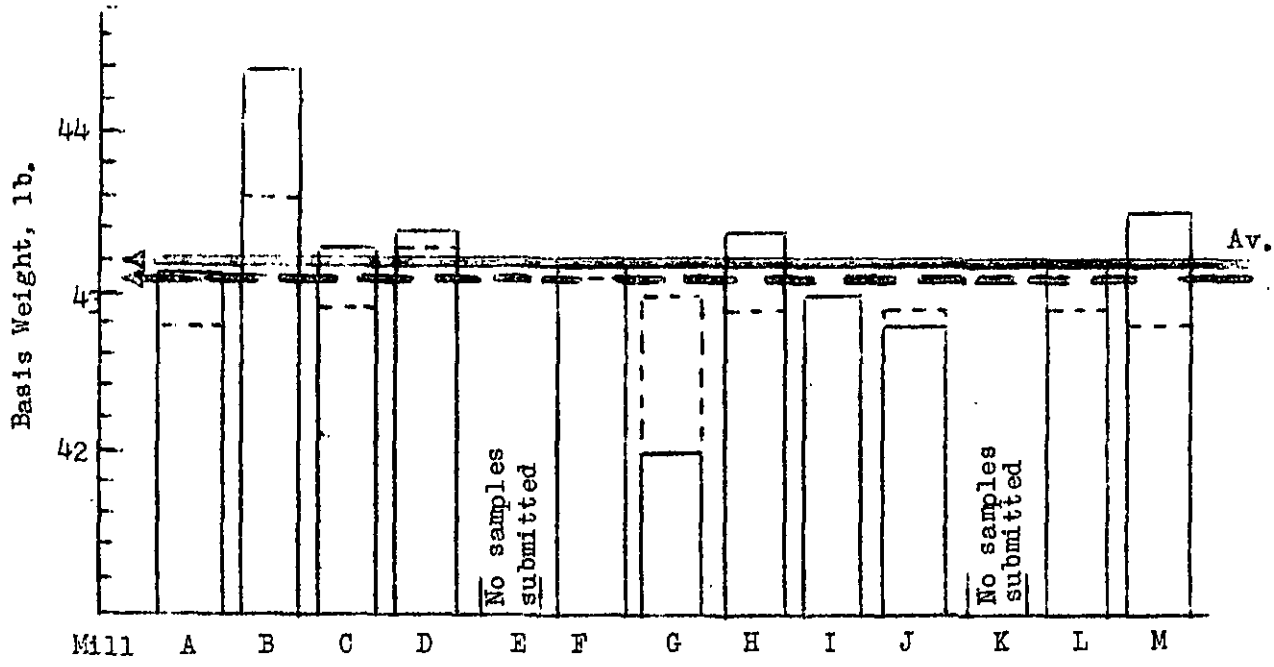
The results indicate that a majority of the mills are using a water finish on their 42-lb. linerboard.

Table II

SUMMARY OF COMPOSITE MILL AVERAGES -DECEMBER 1 THROUGH 31, 1951

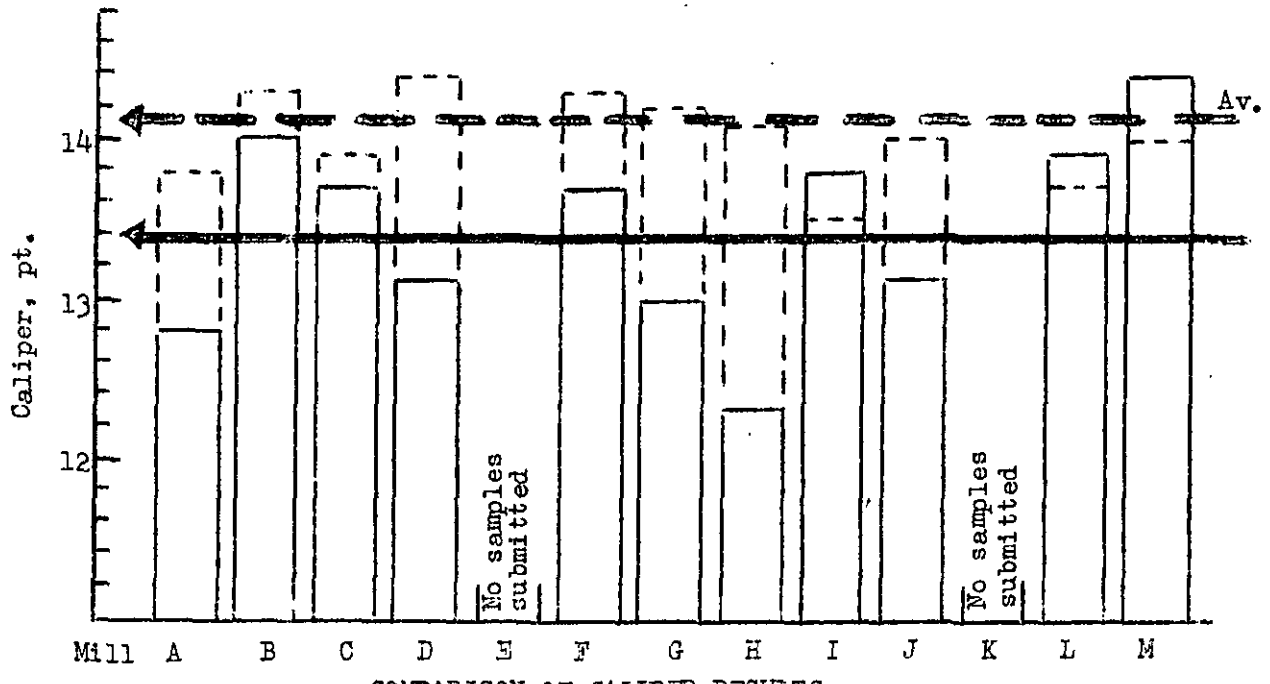
Code No.	Basis Weight, lb.	Caliper, points	Bursting Strength, p.s.i. gage	G. E. Puncture, units	Elmendorf Tear, g./sheet In Direction	Elmendorf Tear, g./sheet Across Direction
A	43.1	12.8	105	34	339	377
B	44.4	14.0	107	36	365	420
C	43.3	13.7	108	37	364	407
D	43.4	13.1	105	39	397	421
E	No samples submitted.					
F	43.2	13.7	102	41	396	433
G	42.0	13.0	102	32	293	377
H	43.4	12.3	104	34	368	389
I	43.0	13.8	109	33	350	408
J	42.8	13.1	107	31	371	380
K	No samples submitted.					
L	43.2	13.9	109	37	366	393
M	43.5	14.4	103	38	376	411
Current FKI Average:	43.2	13.4	106	36	362	398
Cumulative FKI Average:	43.1	14.1	106	36	376	409
FKI Index,%:	100.2	95.0	100.0	100.0	96.3	97.3

Figure 1



COMPARISON OF BASIS WEIGHT RESULTS
(Period December 1 - December 31)

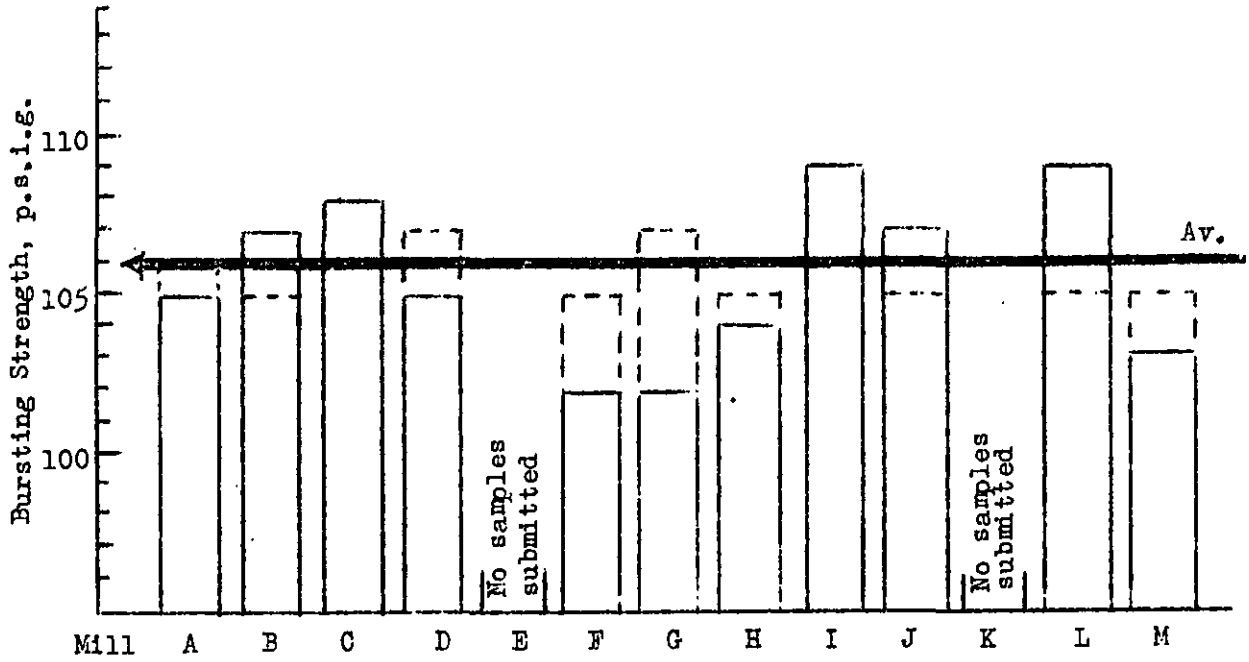
Figure 2



COMPARISON OF CALIPER RESULTS
(Period December 1 - December 31)

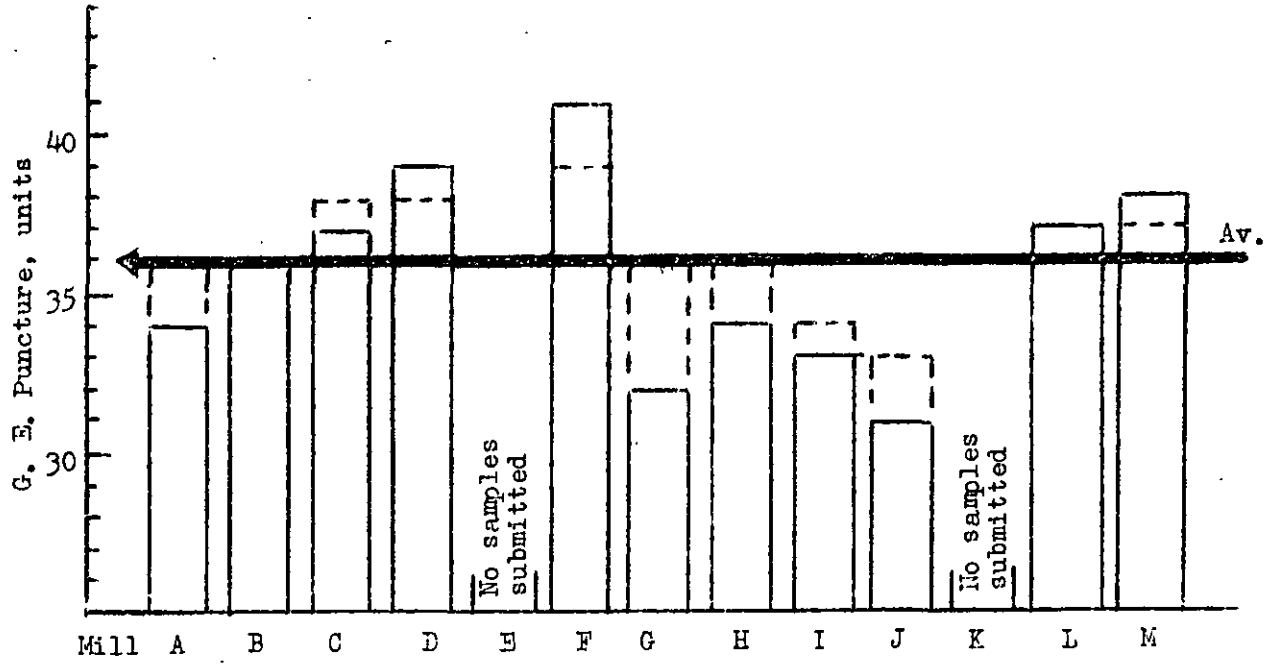
——— Current Mill Average
- - - - Cumulative Average

Figure 3



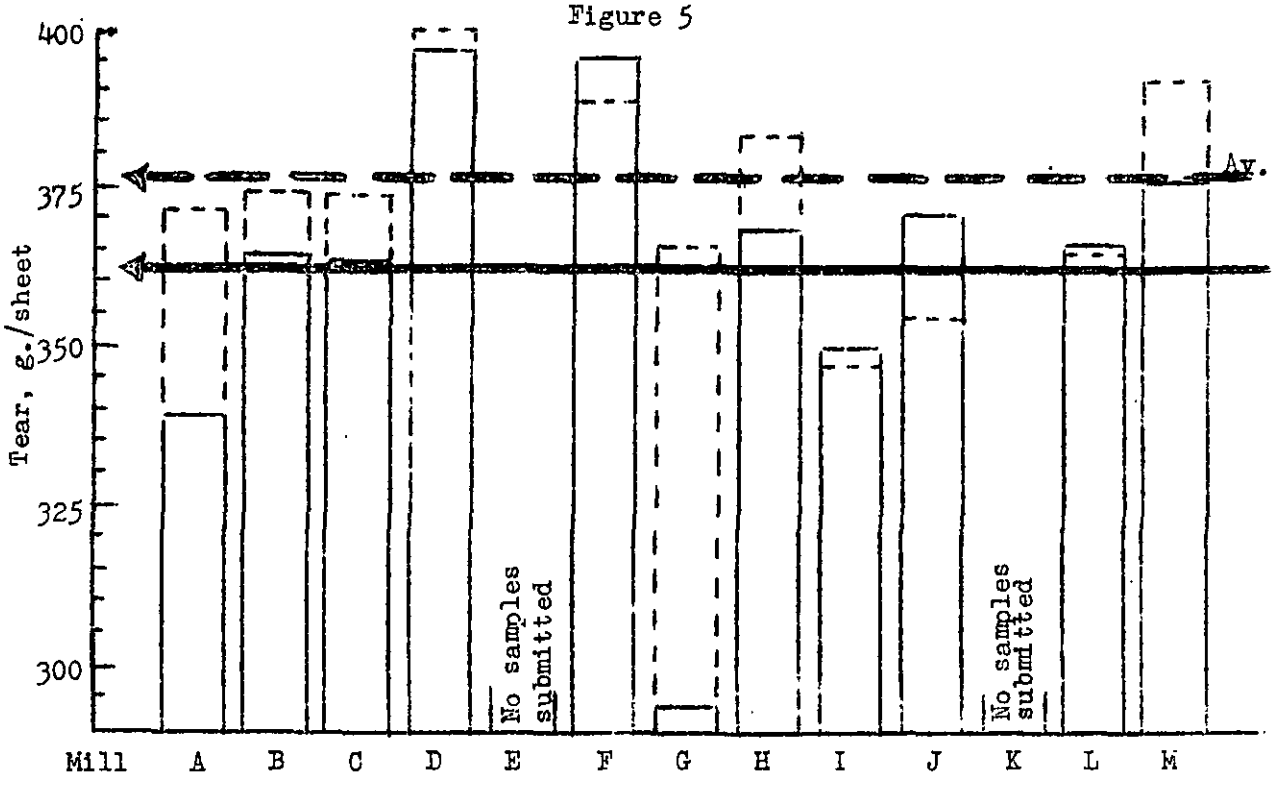
COMPARISON OF BURSTING STRENGTH RESULTS
(Period December 1 - December 31)

Figure 4



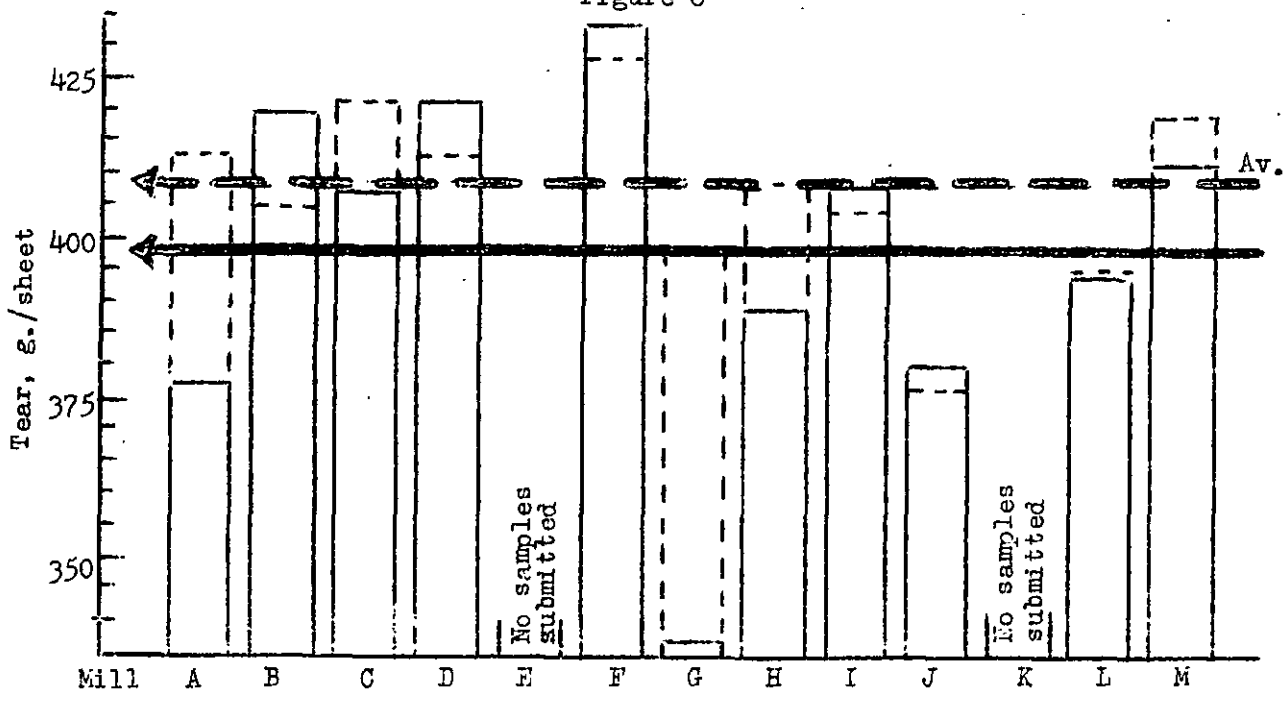
COMPARISON OF G. E. PUNCTURE RESULTS
(Period December 1 - December 31)

Figure 5



COMPARISON OF TEAR RESULTS, Machine Direction
(Period December 1 - December 31)

Figure 6



COMPARISON OF TEAR RESULTS, Across-machine Direction
(Period December 1 - December 31)

TABLE III

RY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Max	Min.	Av	Max.	Min.	Av	Max.	Min	Av.	Max.	Min.	Av	Max.	Min.	Av.	Max.	Min.	Av.
Mill A--42-lb. Linerboard																	
44.0	42.0	43 2	13.0	12.4	12.8	114	87	104	32	28	30	368	256	310	384	304	338[a]
44.2	41.8	42.8	13.1	12 1	12.7	120	89	105	33	29	31	336	280	307[a]	352	296	334[a]
45.2	43.2	44.1	13.5	12.5	13.0	126	84	103	40	34	36	384	320	361[a]	440	376	397[a]
43.6	42.0	42.7	13.5	11.9	12.7	138	86	114	38	32	35	400	256	343	464	376	413[a]
43.8	42.2	43.2	13.9	12.9	13.3	136	92	113	39	33	36	416	288	343	432	368	405[a]
43 2	40.4	42.6	13 3	12.1	12.8	132	90	110	40	34	37	464	280	352[a]	456	368	404[a]
43 6	41.8	42.6	12.9	12.0	12.3	119	85	103	39	32	35	408	304	351[a]	400	336	366[a]
44 0	42.0	42.8	12.6	11.5	12.3	122	87	105	36	32	34	376	288	337[a]	432	360	390[a]
44 4	42.8	43.7	14.1	12.9	13.5	114	78	98	37	31	34	400	288	341[a]	440	320	375[a]
44 2	42.4	43.2	13.4	12.1	12.8	117	87	103	37	30	33	376	280	331[a]	408	328	367[a]
44.2	43.0	43.5	13.7	12 0	12.8	123	68	100	37	32	35	376	312	351[a]	424	336	387[a]
43.8	41.8	42.7	13.3	12.0	12.7	127	86	102	35	28	32	400	272	341[a]	376	312	347[a]
		43.1			12.8			105			34			339			377
		42.8			13.8			106			36			372			413
		100.7			92.8			99.1			94.4			91.1			91.3
		100.0			90.8			99.1			94.4			90.2			92.2

or more specimens which tore beyond the 3/8-inch limit.

TABLE III

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			
						Max.	Min.	Av.	Max.	Min.	Av	Max.	Min.	Av.	Max.	Min.	Av.	Ma
Mill A--42-lb. Linerboard																		
149157	A-296	WFlS	12/ 3/51	11/24/51	2	44.0	42.0	43.2	13.0	12.4	12.8	114	87	104	32	28	30	36
149211	A-297	WFlS	12/ 7/51	11/24/51	2	44.2	41.8	42.8	13.1	12.1	12.7	120	89	105	33	29	31	33
149212	A-298	WFlS	12/ 7/51	11/25/51	2	45.2	43.2	44.1	13.5	12.5	13.0	126	84	103	40	34	36	38
149234	A-299	WFlS	12/10/51	11/25/51	1	43.6	42.0	42.7	13.5	11.9	12.7	138	86	114	38	32	35	40
149235	A-300	WFlS	12/10/51	12/ 2/51	1	43.8	42.2	43.2	13.9	12.9	13.3	136	92	113	39	33	36	41
149246	A-301	WFlS	12/12/51	12/ 2/51	1	43.2	40.4	42.6	13.3	12.1	12.8	132	90	110	40	34	37	46
149286	A-302	WFlS	12/17/51	12/11/51	2	43.6	41.8	42.6	12.9	12.0	12.3	119	85	103	39	32	35	40
149357	A-303	WFlS	12/21/51	12/11/51	2	44.0	42.0	42.8	12.6	11.5	12.3	122	87	105	36	32	34	37
149362	A-304	WFlS	12/26/51	12/18/51	1	44.4	42.8	43.7	14.1	12.9	13.5	114	78	98	37	31	34	40
149363	A-305	WFlS	12/26/51	12/18/51	2	44.2	42.4	43.2	13.4	12.1	12.8	117	87	103	37	30	33	37
149405	A-306	WFlS	12/31/51	12/24/51	2	44.2	43.0	43.5	13.7	12.0	12.8	123	68	100	37	32	35	37
149406	A-307	WFlS	12/31/51	12/23/51	2	43.8	41.8	42.7	13.3	12.0	12.7	127	86	102	35	28	32	40
Current Mill Average:								43.1			12.8			105			34	
Cumulative Mill Average:								42.8			13.8			106			36	
Mill Factor, %:								100.7			92.8			99.1			94.4	
Mill Index, %:								100.0			90.8			99.1			94.4	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

ch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill B -- 42-lb. Linerboard																		
1	46.0	43.8	45.0	14.1	13.0	13.7	136	94	113	37	30	34	456	320	375[a]	448	344	401[a]
1	46.0	44.0	44.9	14.2	13.0	13.6	131	78	107	39	34	36	400	264	334	440	344	403[a]
1	46.0	44.0	45.1	14.2	12.9	13.5	137	87	110	37	31	34	432	296	344[a]	464	352	418[a]
1	45.8	44.2	44.6	14.3	12.8	13.6	128	95	111	37	30	34	432	296	365[a]	443	344	393[a]
1	45.8	44.0	44.8	14.1	12.9	13.6	130	85	110	36	30	33	400	264	351	504	368	419[a]
1	45.8	44.2	44.7	14.1	12.8	13.6	132	89	112	40	32	36	424	288	347[a]	480	352	412[a]
1	45.8	43.8	44.7	14.3	12.6	13.6	141	74	109	39	32	36	432	304	369[a]	440	360	411[a]
1	45.8	44.0	44.9	14.1	12.9	13.5	132	73	105	37	32	35	368	288	342	440	352	396[a]
1	44.6	42.2	43.3	14.5	13.0	13.8	122	78	105	39	33	36	432	312	375[a]	504	400	429[a]
1	44.4	42.0	43.2	14.5	13.2	13.9	113	86	102	40	33	36	400	288	353	448	352	401[a]
1	44.4	42.0	43.0	14.7	13.0	13.8	142	74	104	41	32	36	432	360	393	464	392	433[a]
1	44.4	41.8	42.8	14.5	13.0	13.7	119	87	104	39	32	37	432	336	393	512	368	439[a]
1	45.8	44.0	45.0	15.6	14.2	14.9	129	85	108	41	36	38	464	320	384[a]	520	400	448[a]
1	45.8	44.2	44.8	15.6	14.0	14.7	126	86	108	41	36	38	448	304	362	480	408	447[a]
1	46.0	44.0	44.9	15.5	14.0	15.0	117	84	103	45	38	41	440	336	385	480	384	423[a]
1	46.0	44.2	44.9	15.6	14.1	14.8	130	78	105	41	36	38	400	352	381	496	400	441[a]
			44.4			14.0			107			36			365			420
			43.6			14.3			105			36			375			405
			101.8			97.9			101.9			100.0			97.3			103.7
			103.0			99.3			100.9			100.0			97.1			102.7

or more specimens which tore beyond the 3/8-inch limit.

TABLE IV

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av
						Mill B -- 42-lb. Linerboard											
149171	B-507	WFIS	12/4/51	11/24/51	1	46.0	43.8	45.0	14.1	13.0	13.7	136	94	113	37	30	34
149172	B-508	WFIS	12/4/51	11/24/51	1	46.0	44.0	44.9	14.2	13.0	13.6	131	78	107	39	34	36
149173	B-509	WFIS	12/4/51	11/24/51	1	46.0	44.0	45.1	14.2	12.9	13.5	137	87	110	37	31	34
149174	B-510	WFIS	12/4/51	11/24/51	1	45.8	44.2	44.6	14.3	12.8	13.6	128	95	111	37	30	34
149184	B-511	WFIS	12/5/51	11/25/51	1	45.8	44.0	44.8	14.1	12.9	13.6	130	85	110	36	30	33
149195	B-512	WFIS	12/6/51	11/25/51	1	45.8	44.2	44.7	14.1	12.8	13.6	132	89	112	40	32	36
149196	B-513	WFIS	12/6/51	11/25/51	1	45.8	43.8	44.7	14.3	12.6	13.6	141	74	109	39	32	36
149197	B-514	WFIS	12/6/51	11/25/51	1	45.8	44.0	44.9	14.1	12.9	13.5	132	73	105	37	32	35
149323	B-515	WFIS	12/19/51	12/7/51	1	44.6	42.2	43.3	14.5	13.0	13.8	122	78	105	39	33	36
149324	B-516	WFIS	12/19/51	12/7/51	1	44.4	42.0	43.2	14.5	13.2	13.9	113	86	102	40	33	36
149325	B-517	WFIS	12/19/51	12/7/51	1	44.4	42.0	43.0	14.7	13.0	13.8	142	74	104	41	32	36
149326	B-518	WFIS	12/19/51	12/7/51	1	44.4	41.8	42.8	14.5	13.0	13.7	119	87	104	39	32	37
149401	B-519	WFIS	12/29/51	12/15/51	1	45.8	44.0	45.0	15.6	14.2	14.9	129	85	108	41	36	38
149402	B-520	WFIS	12/29/51	12/15/51	1	45.8	44.2	44.8	15.6	14.0	14.7	126	86	108	41	36	38
149403	B-521	WFIS	12/29/51	12/15/51	1	46.0	44.0	44.9	15.5	14.0	15.0	117	84	103	45	38	41
149404	B-522	WFIS	12/29/51	12/15/51	1	46.0	44.2	44.9	15.6	14.1	14.8	130	78	105	41	36	38
Current Mill Average:								44.4			14.0			107			36
Cumulative Mill Average:								43.6			14.3			105			36
Mill Factor, %:								101.8			97.9			101.9			100.
Mill Index, %:								103.0			99.3			100.9			100.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE V

INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
				Mill C--42-lb. Linerboard												
40.4	41.4	13.8	12.3	13.0	138	89	114	38	33	35	448	312	371	464	376	429[a]
42.0	43.2	14.1	12.9	13.5	125	86	109	37	32	35	384	288	347[a]	432	368	393[a]
42.6	43.8	14.0	12.5	13.5	122	89	107	39	35	37	392	304	354[a]	440	384	404[a]
43.8	44.6	15.0	13.5	14.1	127	90	110	41	35	39	432	344	378[a]	480	392	420[a]
44.0	44.7	14.6	13.4	14.2	135	91	112	38	35	37	440	336	384	464	400	421[a]
42.2	43.0	14.8	13.0	14.0	137	91	109	40	36	38	416	280	360	448	344	401[a]
42.2	43.4	14.5	12.8	13.8	126	74	101	42	35	38	400	344	367	432	368	397[a]
41.0	41.9	14.0	12.2	13.4	129	79	105	39	33	36	384	320	351	432	352	392[a]
	43.3			13.7			108			37			364			407
	42.9			13.9			106			38			375			421
	100.9			98.6			101.9			97.4			97.1			96.7
	100.5			97.2			101.9			102.8			96.8			99.5

specimens which tore beyond the 3/8-inch limit.

TABLE V

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			M
						Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	
Mill C--42-lb. Linerboard																		
149365	C-331	W.F.	12/26/51	12/ 5/51	1	42.2	40.4	41.4	13.8	12.3	13.0	138	89	114	38	33	35	4
149413	C-332	W.F.	12/31/51	12/20/51	1	44.0	42.0	43.2	14.1	12.9	13.5	125	86	109	37	32	35	3
149414	C-333	W.F.	12/31/51	12/20/51	1	44.4	42.6	43.8	14.0	12.5	13.5	122	89	107	39	35	37	3
149415	C-334	W.F.	12/31/51	12/20/51	1	45.6	43.8	44.6	15.0	13.5	14.1	127	90	110	41	35	39	4
149416	C-335	W.F.	12/31/51	12/20/51	1	45.8	44.0	44.7	14.6	13.4	14.2	135	91	112	38	35	37	4
149417	C-336	W.F.	12/31/51	12/20/51	1	44.0	42.2	43.0	14.8	13.0	14.0	137	91	109	40	36	38	4
149418	C-337	W.F.	12/31/51	12/20/51	1	44.0	42.2	43.4	14.5	12.8	13.8	126	74	101	42	35	38	4
149419	C-338	W.F.	12/31/51	12/23/51	1	42.2	41.0	41.9	14.0	12.2	13.4	129	79	105	39	33	36	3
Current Mill Average:								43.3			13.7			108			37	
Cumulative Mill Average:								42.9			13.9			106			38	
Mill Factor, %:								100.9			98.6			101.9			97.4	
Mill Index, %:								100.5			97.2			101.9			102.8	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Table VI

RY OF INDIVIDUAL TEST LOTS DECEMBER 1 THROUGH 31, 1951 (continued)

ight,	Caliper points			Bursting Strength p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill D -- 42 lb. Linerboard															
42.6	14.0	12.5	13.4	142	86	110	42	34	39	480	344	417[a]	448	360	397[a]
43.6	15.5	13.2	14.2	131	84	101	44	36	40	480	360	419[a]	464	336	400[a]
43.3	13.4	11.3	12.7	125	76	100	42	34	38	432	344	379[a]	456	336	401[a]
42.5	13.7	11.9	12.8	132	76	100	41	34	38	424	336	377[a]	464	368	405[a]
42.5	13.2	12.3	12.8	117	71	95	45	37	40	432	352	390[a]	456	384	423[a]
43.8	13.5	11.9	12.7	133	79	112	42	37	40	456	336	398[a]	480	344	429[a]
44.0	14.4	13.2	13.9	144	86	109	46	39	42	472	352	421[a]	512	384	458[a]
43.5	14.0	12.3	13.2	136	61	100	43	37	40	432	352	391[a]	528	376	437[a]
43.8	13.8	12.2	12.9	136	79	106	43	39	41	488	352	403[a]	480	360	428[a]
43.2	13.0	11.5	12.5	145	82	112	44	36	39	400	328	369[a]	488	392	436[a]
44.2	13.2	12.0	12.7	134	76	110	40	35	37	456	360	407[a]	472	392	419[a]
43.4			13.1			105			39			397			421
43.3			14.4			107			38			400			413
100.2			91.0			98.1			102.6			99.2			101.9
100.7			92.9			99.1			108.3			105.6			102.9

e specimens which tore beyond the 3/8 inch limit.

Table VI

SUMMARY OF INDIVIDUAL TEST LOTS DECEMBER 1 THROUGH 31, 1951 (contin

File No.	Mill Code	Fin ish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper points Max.	Min.	Av.	Bursting Strengbh p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	Max.
									Mill D -- 42 lb. Linerboard									
149188	D-475	D.F.	12/5/51	11/30/51	4	43.8	40.6	42.6	14.0	12.5	13.4	142	86	110	42	34	39	480
149189	D-476	D.F.	12/5/51	12/1/51	4	45.6	42.2	43.6	15.5	13.2	14.2	131	84	101	44	36	40	480
149190	D-477	W.F.	12/5/51	12/2/51	4	44.6	42.2	43.3	13.4	11.3	12.7	125	76	100	42	34	38	432
149193	D-478	W.F.	12/5/51	12/3/51	4	43.6	42.0	42.5	13.7	11.9	12.8	132	76	100	41	34	38	424
149194	D-479	W.F.	12/5/51	12/4/51	4	43.6	41.8	42.5	13.2	12.3	12.8	117	71	95	45	37	40	432
149213	D-480	W.F.	12/7/51	12/5/51	4	45.0	42.4	43.8	13.5	11.9	12.7	133	79	112	42	37	40	456
149361	D-481	D.F.	12/21/51	12/17/51	4	44.4	43.0	44.0	14.4	13.2	13.9	144	86	109	46	39	42	472
149364	D-482	W.F.	12/26/51	12/20/51	4	44.4	42.4	43.5	14.0	12.3	13.2	136	61	100	43	37	40	432
149373	D-483	W.F.	12/28/51	12/21/51	4	45.0	43.0	43.8	13.8	12.2	12.9	136	79	106	43	39	41	488
149374	D-484	W.F.	12/28/51	12/22/51	4	44.0	42.0	43.2	13.0	11.5	12.5	145	82	112	44	36	39	400
149375	D-485	W.F.	12/28/51	12/23/51	4	45.6	43.6	44.2	13.2	12.0	12.7	134	76	110	40	35	37	456
Current Mill Average:								43.4			13.1			105			39	
Cumulative Mill Average:								43.3			14.4			107			38	
Mill Factor,%:								100.2			91.0			98.1			102.6	
Mill Index,%:								100.7			92.9			99.1			108.3	

[a]This average includes the readings for one or more specimens which tore beyond the 3/8 inch limit.

TABLE VII

)UAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

nt,	Caliper, points			Bursting Strength, p.s.i. gage			G. E Puncture, units			Elmendorf Tear g./sheet					
										In			Across		
Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill E--42-lb. Linerboard															
No samples submitted.															

TABLE VIII

Mill F--42-lb. Linerboard

42.4	13.8	12 8	13 2	118	79	103	44	37	41	440	320	389[a]	472	400	430[a]
41 8	14.0	13.0	13.4	109	77	95	41	35	38	408	320	349[a]	472	336	401[a]
42.2	14.6	13.1	13.8	113	81	99	43	35	40	408	328	362	528	384	433[a]
42.9	14.0	12.0	13.2	126	82	107	45	38	41	440	352	395[a]	496	376	437[a]
43.1	14.8	13.8	14.2	120	84	102	43	37	40	448	336	404	488	384	431[a]
42.8	14.9	13 2	14.1	118	82	97	43	37	40	432	328	390	472	368	421[a]
45.0	15.0	13.4	14.2	118	88	102	49	41	44	440	392	419[a]	480	392	431[a]
42.7	14 1	12.6	13 5	113	83	98	47	41	44	488	352	422[a]	480	408	448[a]
45.4	14.7	12.6	13 8	141	88	105	47	42	44	448	360	417[a]	512	416	454[a]
43.7	14.2	12.3	13.2	127	83	109	44	37	41	488	368	409[a]	520	400	451[a]
42 9	14.1	12.8	13.6	115	81	101	43	37	40	440	360	398[a]	456	384	422[a]
43.2			13.7			102			41			396			433
43 1			14.3			105			39			388			428
00.2			95.8			97.1			105.1			102.1			101.2
00.2			97.2			96.2			113.9			105.3			105.9

ens which tore beyond the 3/8-inch limit.

TABLE VII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

File No.	Milk Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av.	M
						Mill E--42-lb. Linerboard												
No samples submitted.																		

TABLE VIII

Mill F--42-lb. Linerboard

149236	F-94	W.F.	12/10/51	11/13/51	--	43.4	41.8	42.4	13.8	12.8	13.2	118	79	103	44	37	41	4
149237	F-95	W.F.	12/10/51	11/28/51	--	42.4	40.2	41.8	14.0	13.0	13.4	109	77	95	41	35	38	4
149241	F-96	--	12/11/51	11/29/51	--	43.0	41.6	42.2	14.6	13.1	13.8	113	81	99	43	35	40	4
149282	F-97	--	12/15/51	11/30/51	--	44.2	41.8	42.9	14.0	12.0	13.2	126	82	107	45	38	41	4
149283	F-98	--	12/15/51	12/ 6/51	--	44.0	41.8	43.1	14.8	13.8	14.2	120	84	102	43	37	40	4
149284	F-99	W.F	12/15/51	12/ 7/51	--	45.0	41.0	42.8	14.9	13.2	14.1	118	82	97	43	37	40	4
149285	F-100	W.F.	12/15/51	12/12/51	--	45.8	44.2	45.0	15.0	13.4	14.2	118	88	102	49	41	44	4
149407	F-101	W.F.	12/31/51	12/19/51	--	43.6	42.0	42.7	14.1	12.6	13.5	113	83	98	47	41	44	4
149408	F-102	W.F.	12/31/51	12/19/51	--	46.0	44.6	45.4	14.7	12.6	13.8	141	88	105	47	42	44	4
149409	F-103	W.F.	12/31/51	12/20/51	--	44.4	43.0	43.7	14.2	12.3	13.2	127	83	109	44	37	41	4
149410	F-104	W.F.	12/31/51	12/21/51	--	44.0	41.2	42.9	14.1	12.8	13.6	115	81	101	43	37	40	4
Current Mill Average:								43.2			13.7			102			41	
Cumulative Mill Average:								43.1			14.3			105			39	
Mill Factor, %:								100.2			95.8			97.1			105.1	
Mill Index, %:								100.2			97.2			96.2			113.9	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE IX

INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

ıs Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage		G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
4ın.	Av.	Max.	Min.	Av.	Max.	Min.	Max.	Mın.	Av.	Max.	Min.	Av.	Max.	Min	Av.
					Mill G--42-lb Linerboard										
41 4	41.9	13.7	12.3	13.0	122	87	106	34	29	32	312	264	286	352	296	319[a]
41.4	42.1	14.0	12.0	13.0	115	82	99	35	31	33	336	272	299	424	320	356[a]
	42.0			13.0			102			32			293			337
	43.0			14.2			107			36			366			398
	97 7			91.5			95.3			88.9			80.1			84.7
	97 4			92 2			96.2			88.9			77.9			82.4

TABLE X

Mill H--42-lb. Linerboard

-2.2	43.1	13.0	11.5	12.1	130	84	104	35	28	31	400	312	349[a]	408	336	373[a]
-1.6	42.4	12.8	10.9	12.2	130	80	98	34	28	31	376	296	331	384	296	359[a]
-2.4	44.0	12 7	11.1	12 0	131	82	102	37	32	34	368	304	343	408	328	373[a]
-1.8	43.1	13.1	11.8	12.3	124	80	103	37	31	34	456	312	369[a]	504	328	389[a]
-1.8	43.2	13.1	11.9	12.4	133	80	107	38	31	34	456	320	395	472	344	399[a]
-2.0	43.7	13.1	11.5	12.4	135	80	105	39	30	35	504	328	400[a]	448	352	393[a]
-3.8	44.0	13.2	12.3	12.8	119	81	102	40	34	36	480	296	348[a]	448	352	403[a]
-3 2	44.1	12 9	12 0	12.5	136	79	105	42	34	37	528	312	398[a]	472	368	413[a]
-1 8	42 9	12.8	11.2	12.0	138	71	111	36	30	34	448	320	359	440	360	401[a]
-1.8	42 5	12.8	11.3	12.0	123	84	105	38	32	34	400	304	351	424	352	390[a]
-3 2	43.8	13.5	12.0	12.8	127	84	107	40	34	37	456	344	411[a]	464	336	387[a]
	43 4			12.3			104			34			368			389
	42 9			14.1			105			36			383			409
	101 2			87.2			99.0			94.4			96.1			95.1
	100 7			87.2			98.1			94.4			97.9			95.1

ore specimens which tore beyond the 3/8-inch limit

TABLE IX

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av
									Mill G--42-lb. Linerboard								
149238	G-386	WFL	12/10/51	12/ 4/51	1	42.6	41.4	41.9	13.7	12.3	13.0	122	87	106	34	29	32
149239	G-387	WFL	12/10/51	12/ 4/51	1	42.8	41.4	42.1	14 0	12.0	13.0	115	82	99	35	31	33
Current Mill Average:								42.0			13.0			102			32
Cumulative Mill Average:								43.0			14.2			107			36
Mill Factor, %:								97 7			91.5			95.3			88
Mill Index, %:								97.4			92.2			96.2			88

TABLE X

									Mill H--42-lb. Linerboard								
149185	H 295	WFlS	12/5/51	11/ 5/51	2	44.0	42.2	43.1	13.0	11.5	12.1	130	84	104	35	28	31
149186	H-296	WFlS	12/ 5/51	11/ 6/51	2	43.8	41.6	42.4	12.8	10.9	12.2	130	80	98	34	28	31
149187	H 297	WFlS	12/ 5/51	11/12/51	2	44.4	42.4	44.0	12.7	11.1	12.0	131	82	102	37	32	34
149230	H-298	WFlS	12/10/51	11/13/51	2	43.8	41.8	43.1	13 1	11.8	12.3	124	80	103	37	31	34
149231	H-299	WFlS	12/10/51	11/18/51	2	45.6	41.8	43.2	13.1	11.9	12.4	133	80	107	38	31	34
149232	H-300	WFlS	12/10/51	11/19/51	2	45 2	42.0	43 7	13.1	11.5	12.4	135	80	105	39	30	35
149233	H-301	WFlS	12/10/51	11/26/51	2	44.6	43.8	44.0	13.2	12 3	12.8	119	81	102	40	34	36
149376	H-302	WFlS	12/28/51	12/ 2/51	2	45.6	43.2	44.1	12 9	12.0	12.5	136	79	105	42	34	37
149377	H-303	WFlS	12/28/51	12/3 /51	2	43.8	41.8	42 9	12.8	11.2	12.0	138	71	111	36	30	34
149378	H-304	WFlS	12/28/51	12/10/51	2	43.2	41.8	42.5	12.8	11.3	12.0	123	84	105	38	32	34
149379	H-305	WFlS	12/28/51	12/11/51	2	44.4	43 2	43.8	13.5	12.0	12.8	127	84	107	40	34	37
Current Mill Average:								43.4			12 3			104			34
Cumulative Mill Average:								42.9			14.1			105			36
Mill Factor, %:								101.2			87.2			99.0			94
Mill Index, %:								100.7			87.2			98.1			94

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XI

NDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31 1951 (continued)

Weight, lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Across		
in.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av	Max.	Min.	Av.	Max.	Min..	Av.
					Mill I--42-lb. Linerboard											
.0	42.8	14.0	13.1	13.6	132	96	109	34	29	32	384	312	343[a]	456	368	413[a]
.2	42.7	14.0	13.1	13.6	119	88	106	35	30	33	400	304	355	432	376	402[a]
.2	43.2	14.1	13.5	13.8	123	96	109	35	30	33	440	320	354[a]	496	376	415[a]
.6	43.1	14.7	13.5	14.1	134	93	112	39	33	35	392	296	349	440	360	399[a]
	43.0			13 8			109			33			350			408
	43.0			13.5			106			34			347			404
	100.0			102 2			102.8			97.1			100.9			101.0
	99.8			97.9			102.8			91.7			93.1			99.8

TABLE XII

Mill J--42-lb. Linerboard

.6	42.2	13.3	12.1	12.7	128	95	113	30	27	28	448	296	367[a]	376	320	351[a]
.8	42.2	13.3	12.1	12.9	127	81	109	30	26	28	416	312	352	400	336	360[a]
.6	42.2	13.2	12.3	12.9	124	95	109	34	29	32	400	328	363[a]	440	328	379[a]
.0	42.8	13.3	11.9	12.6	128	90	108	34	29	32	392	320	359[a]	424	344	375[a]
.8	44.0	13.9	12.6	13.3	133	83	109	37	30	33	488	312	407[a]	520	368	417[a]
.0	43.0	14.0	12.5	13.3	122	81	106	34	29	31	472	296	378[a]	448	336	393[a]
	42.9	14.0	12.5	13.4	135	76	103	38	30	34	448	328	375[a]	424	328	383[a]
.6	42.8	14.0	12.8	13.5	115	74	102	35	30	33	416	312	369[a]	440	344	391[a]
	42.8			13.1			107			31			371			380
	42.9			14.0			105			33			355			376
	99.8			93.6			101.9			93.9			104.5			101.1
	99.3			92.9			100.9			86.1			98.7			92.9

e specimens which tore beyond the 3/8-inch limit.

TABLE XI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	Av	Max
									Mill I--42-lb. Linerboard									
149244	I-210	WF1S	12/11/51	12/ 3/51	1	43.8	42.0	42.8	14.0	13.1	13.6	132	96	109	34	29	32	384
149240	I-211	WF1S	12/10/51	12/ 4/51	1	44.0	42.2	42.7	14.0	13.1	13.6	119	88	106	35	30	33	400
149288	I-212	WF1S	12/17/51	12/ 8/51	1	44.4	42.2	43.2	14.1	13.5	13.8	123	96	109	35	30	33	440
149366	I-213	WF1S	12/26/51	12/14/51	1	43.8	42.6	43.1	14.7	13.5	14.1	134	93	112	39	33	35	392
Current Mill Average:								43.0			13.8			109			33	
Cumulative Mill Average:								43.0			13.5			106			34	
Mill Factor, %:								100.0			102.2			102.8			97.1	
Mill Index, %:								99.8			97.9			102.8			91.7	

TABLE XII

									Mill J--42-lb. Linerboard									
149155	J-317	B.F.	12/ 3/51	11/25/51	1	42.8	41.6	42.2	13.3	12.1	12.7	128	95	113	30	27	28	448
149156	J-318	B.F.	12/ 3/51	11/25/51	1	43.0	41.8	42.2	13.3	12.1	12.9	127	81	109	30	26	28	416
149278	J-319	--	12/14/51	12/ 3/51	1	43.8	40.6	42.2	13.2	12.3	12.9	124	95	109	34	29	32	400
149279	J-320	--	12/14/51	12/ 3/51	1	43.6	42.0	42.8	13.3	11.9	12.6	128	90	108	34	29	32	392
149358	J-321	B.F.	12/21/51	12/10/51	1	44.2	43.8	44.0	13.9	12.6	13.3	133	83	109	37	30	33	488
149359	J-322	B.F.	12/21/51	12/10/51	1	44.0	42.0	43.0	14.0	12.5	13.3	122	81	106	34	29	31	472
149420	J-323	B.F.	12/31/51	12/14/51	1	--	--	42.9	14.0	12.5	13.4	135	76	103	38	30	34	448
149421	J-324	B.F.	12/31/51	12/14/51	1	44.0	41.6	42.8	14.0	12.8	13.5	115	74	102	35	30	33	416
Current Mill Average:								42.8			13.1			107			31	
Cumulative Mill Average:								42.9			14.0			105			33	
Mill Factor, %:								99.8			93.6			101.9			93.9	
Mill Index, %:								99.3			92.9			100.9			86.1	

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Table XIII

: OF INDIVIDUAL TEST LOTS -DECEMBER 1 THROUGH 31, 1951 (continued)

Basis Weight lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill K -- 42-lb. Linerboard — No samples submitted																	
le XIV — Mill L -- 42-lb Linerboard																	
43.8	41.6	42.8	14.1	12.5	13.3	130	80	106	38	32	36	432	312	359[a]	440	344	391[a]
44.0	41.6	43.0	14.9	12.9	13.8	132	76	108	38	34	36	400	312	353[a]	424	336	375[a]
44.0	43.0	43.6	15.0	12.3	13.9	133	98	119	40	35	37	440	336	379[a]	440	368	404[a]
44.4	42.0	43.0	14.9	13.0	13.8	120	78	105	41	31	37	392	312	356[a]	432	336	381[a]
45.8	42.2	43.6	14.8	13.2	14.0	141	80	110	39	33	37	392	312	346[a]	440	352	397[a]
44.2	42.2	43.1	15.1	13.8	14.5	126	83	105	41	33	38	440	360	405[a]	472	360	410[a]
		43.2			13.9			109			37			366			393
		42.9			13.7			105			36			365			394
		100.7			101.5			103.8			102.8			100.3			99.7
		100.2			98.6			102.8			102.8			97.3			96.1

more specimens which tore beyond the 3/8 inch limit.

Table XIII

SUMMARY OF INDIVIDUAL TEST LOTS -DECEMBER 1 THROUGH 31, 1951 (continued)

File No.	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight lb. Max.	Basis Weight lb. Min.	Basis Weight lb. Av.	Caliper, points Max.	Caliper, points Min.	Caliper, points Av.	Bursting Strength, p.s.i. gage Max.	Bursting Strength, p.s.i. gage Min.	Bursting Strength, p.s.i. gage Av.	G. E. Puncture, units Max.	G. E. Puncture, units Min.	G. E. Puncture, units Av.	Max
Mill K -- 42-lb. Linerboard — No samples submitted																		
Table XIV — Mill L -- 42-lb Linerboard																		
149367	L-53		12/27/51	11/18/51	1	43.8	41.6	42.8	14.1	12.5	13.3	130	80	106	38	32	36	432
149368	L-54		12/27/51	11/19/51	1	44.0	41.6	43.0	14.9	12.9	13.8	132	76	108	38	34	36	400
149369	L-55		12/27/51	11/30/51	1	44.0	43.0	43.6	15.0	12.3	13.9	133	98	119	40	35	37	440
149370	L-56		12/27/51	12/7/51	1	44.4	42.0	43.0	14.9	13.0	13.8	120	78	105	41	31	37	392
149371	L-57		12/27/51	12/12/51	1	45.8	42.2	43.6	14.8	13.2	14.0	141	80	110	39	33	37	392
149372	L-58		12/27/51	12/12/51	1	44.2	42.2	43.1	15.1	13.8	14.5	126	83	105	41	33	38	440
Current Mill Average:								43.2			13.9			109			37	
Cumulative Mill Average:								42.9			13.7			105			36	
Mill Factor, %:								100.7			101.5			103.8			102.8	
Mill Index, %:								100.2			98.6			102.8			102.8	

[a]This average includes the readings for one or more specimens which tore beyond the 3/8 inch limit.

TABLE XV

RY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max	Min	Av.	Max.	Min.	Av	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill M--42-lb. Linerboard																	
45.8	41.6	43 9	15.9	14 5	15.3	130	80	103	41	33	37	448	312	384[a]	448	352	413[a]
45.0	43 2	44.2	16.8	14.7	15.6	132	89	106	46	38	42	448	336	395	528	416	466[a]
44.2	42.4	43.5	16.0	14.4	15.3	121	82	104	43	36	40	456	368	409	456	376	425[a]
44 2	42 2	43.2	14.3	13.3	13.9	134	89	108	40	34	38	440	360	394[a]	440	352	396[a]
45.0	42.6	43.9	14.9	13.8	14.3	108	72	94	43	36	38	488	384	417	448	408	423[a]
44 0	40 2	42.4	13 5	12.4	13.1	124	84	105	41	32	36	384	328	355	448	344	399[a]
46.0	41.8	43 9	14.5	13.5	14.0	123	74	103	36	31	34	384	280	339[a]	416	352	381[a]
45.8	40.0	42.8	14.5	13.5	14.0	115	81	105	39	31	36	360	272	320	432	352	381[a]
		43.5			14.4			103			38			376			411
		42.8			14 0			105			37			392			418
		101 6			102.9			98.1			102.7			95.9			98.3
		100 9			102.1			97.2			105.6			100.0			100.5

more specimens which tore beyond the 3/8-inch limit.

TABLE XV

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

File No	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av	G. E. Puncture, units Max.	Min.	Av.
									Mill M--42-lb. Linerboard								
149175	M-52	D	12/ 4/51	11/25/51	2	45 8	41.6	43 9	15.9	14.5	15.3	130	80	103	41	33	37
149176	M-53	D.	12/ 4/51	11/27/51	2	45.0	43.2	44.2	16.8	14.7	15.6	132	89	106	46	38	42
149242	M-54	D.	12/11/51	12/ 5/51	2	44.2	42.4	43.5	16.0	14.4	15.3	121	82	104	43	36	40
149243	M-55	W.	12/11/51	12/ 5/51	2	44 2	42.2	43.2	14.3	13.3	13.9	134	89	108	40	34	38
149355	M-56	W.	12/20/51	12/10/51	4	45.0	42.6	43.9	14.9	13.8	14.3	108	72	94	43	36	38
149356	M-57	W.	12/20/51	12/12/51	2	44.0	40.2	42 4	13.5	12.4	13.1	124	84	105	41	32	36
149411	M-58	W.	12/31/51	12/16/51	2	46.0	41.8	43.9	14.5	13.5	14.0	123	74	103	36	31	34
149412	M-59	W.	12/31/51	12/17/51	2	45.8	40.0	42.8	14.5	13.5	14.0	115	81	105	39	31	36
Current Mill Average:								43.5			14.4			103			38
Cumulative Mill Average:								42.8			14 0			105			37
Mill Factor, %:								101.6			102.9			98.1			102
Mill Index, %:								100 9			102.1			97.2			105.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

Y OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
												In			Across		
Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.	Max.	Min.	Av.
Mill E--44/46-lb. Drum Linerboard																	
47.0	43.8	45.5	15.1	13.5	14.5	111	75	93	34	28	30	432	352	380[a]	360	280	323[a]
52.2	48.6	50.2	15.5	14.1	14.9	121	76	100	43	36	40	520	392	461[a]	456	360	411[a]
52.2	48.4	50.4	15.1	14.0	14.6	117	85	106	44	38	41	488	408	455[a]	480	384	428[a]
50.4	48.0	49.4	15.9	14.7	15.2	109	77	92	43	37	41	520	392	435[a]	480	376	431[a]
49.6	45.8	46.5	15.3	13.8	14.5	137	72	101	39	32	36	560	400	453[a]	456	336	391[a]
51.4	49.0	50.2	14.8	12.9	14.1	109	75	93	46	40	42	560	456	503[a]	480	416	443[a]
		48.7			14.6			98			38			448			405
		47.2			14.3			100			41			447			427
		103.2			102.1			98.0			92.7			100.2			94.8

r more specimens which tore beyond the 3/8-inch limit.

TABLE XVI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

File No	Mill Code	Finish	Date Recd.	Date Made	Mch. No.	Basis Weight, lb. Max.	Min.	Av.	Caliper, points Max.	Min.	Av.	Bursting Strength, p.s.i. gage Max.	Min.	Av.	G. E. Puncture, units Max.	Min.	A
								Mill E--44/46-lb. Drum Linerboard									
149152	E-294	W.F.	12/3/51	11/29/51	1	47.0	43.8	45.5	15.1	13.5	14.5	111	75	93	34	28	3
149198	E-295	W.F.	12/6/51	12/3/51	1	52.2	48.6	50.2	15.5	14.1	14.9	121	76	100	43	36	4
149247	E-296	W.F.	12/12/51	12/7/51	1	52.2	48.4	50.4	15.1	14.0	14.6	117	85	106	44	38	4
149261	E-297	W.F.	12/13/51	12/10/51	1	50.4	48.0	49.4	15.9	14.7	15.2	109	77	92	43	37	4
149287	E-298	W.F.	12/17/51	12/13/51	1	49.6	45.8	46.5	15.3	13.8	14.5	137	72	101	39	32	3
149360	E-299	W.F.	12/21/51	12/17/51	1	51.4	49.0	50.2	14.8	12.9	14.1	109	75	93	46	40	4
Current Mill Average:								48.7			14.6			98			3
Cumulative Mill Average:								47.2			14.3			100			4
Mill Factor, %:								103.2			102.1			98.0			9

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

As a supplementary part of the Continuous Baseline Study, comparisons of the mill test results with those obtained at The Institute of Paper Chemistry on corresponding samples have been included in this report. As may be noted in Table XVII, the atmospheric conditions used prior to and during the testing period varied considerably.

TABLE XVII

Mill Code	Preconditioning R.H., %	Temp., °F.	Time, hr.	Conditioning R.H., %	Temp., °F.	Time, hr.
A	No preconditioning			40-79	72-87	--
B	30-55	59-72	1/2	50	70	24-120
C	39-50	71-73	24-288	36-42	73-77	4-24
D	30	76	8	50-52	73	16
E*	No preconditioning			36-44	72-84	--
F	No preconditioning			No conditioning		
G	No preconditioning			50	73	24
H	No preconditioning			50	73	24
I	No preconditioning			38-48	72-74	--
J	No preconditioning			49-50	72-73	1/2
K	No samples submitted					
L	No preconditioning			31-66	68-82	--
M	No preconditioning			27-69	72-79	--

* Drum linerboard.

A summary of the mill comparisons for the current period as compared with the previous period may be seen in Tables XVIII and XIX, respectively. The comparison for the various mills is given in Tables

XX to XXXII, for the 42-lb. liner samples. A comparison of the special drum stock is given in Table XXXIII. In all the comparisons given in Tables XVIII to XXXIII, the Institute's test values have been used as the reference line.

A comparison of the test data in Tables XVIII and XIX indicates that in the majority of cases there is good agreement between the mill and Institute data. Table XVIII shows the average difference encountered in the comparison of Institute and mill results for the sample lots submitted b each mill for the current period, as well as the maximum difference encountered in comparing the Institute and mill test results for a given sample lot. In Table XIX, the average differences shown for each test in Table XVIII have been calculated on a percentage basis for each mill. In addition, for purposes of comparison, the average percentage differences for the preceding two periods are shown.

It may be noted in Table XIX that the maximum variation between the average basis weight results of the Institute and those of a given mill on corresponding samples is three per cent for the current period. This figure compares favorably with the maximum variation of two per cent for the preceding two periods. Further, it may be noted that the average basis weight results for Mills F, H, and J are higher than those for the Institute, whereas the results for Mills A, B, C, D, G, I, L, and M are lower. In general, the agreement in basis weight results is very good for the current period.

The maximum variation in caliper for the current period is four per cent. Compared with the values for the Institute, the average

results for Mills A, C, D, F, H, I, J, and M are lower, whereas the average result for Mill B is higher, and the average results for Mills G and L are the same. The accord between Institute and mill caliper values is good.

It may be noted in Table XIX that the bursting strength results exhibit a maximum variation of four per cent for the current period. The average results for Mills A, C, D, F, G, H, I, and M are higher than those for the Institute, whereas the results for Mills B, J, and L are lower. The agreement in bursting strength results is good.

The G. E. puncture results exhibit a maximum variation of thirty-two per cent for the current period. Compared with the values for the Institute, the results for Mills C, G, H, I, and M are lower, whereas the results for Mills A, B, F, and J are higher. The average test value reported by Mill M appears to be abnormally small. The agreement between the Institute and mill results is good with the exception of the variations for Mills C, H, I, and M. The variation for Mill M is especially large.

It may be seen in Table XIX that the average machine direction tear results for Mills A, I, and J are higher than those for the Institute, whereas the average results for Mills B, C, D, F, G, H, L, and M are lower. The maximum variation for the current period is eighteen per cent. The difference encountered for Mill L appeares to be excessive.

With regard to the cross-machine direction tear results, it may be noted that the average results for Mills A, D, F, J, and M are higher than those for the Institute whereas the average results for

Mills B, C, G, H, I, and L are lower. The maximum variation for the current period is eight per cent. None of the differences appear to be exceptionally large.

TABLE XVIII

SUMMARY OF TEST RESULT COMPARISONS
(Average Mill and Institute Results)

Mills*	A	B	C	D	F	G	H	I	J	L	M
No. Samples Compared	12	16	8	11	11	2	11	4	8	6	8
Basis Weight											
Institute	43.1	44.4	43.3	43.4	43.2	42.0	43.4	43.0	42.8	43.2	43.5
Mill	42.9	44.2	42.9	43.1	43.3	41.8	43.7	42.5	43.0	42.6	42.3
Av. Diff.**	-0.2	-0.2	-0.4	-0.3	+0.1	-0.2	+0.3	-0.5	+0.2	-0.6	-1.2
Max. Diff.***	-1.0	-0.8	-0.8	-0.7	-1.2	-0.4	+0.9	-0.6	+0.6	-1.2	-2.1
Caliper											
Institute	12.8	14.0	13.7	13.1	13.7	13.0	12.3	13.8	13.1	13.9	14.4
Mill	12.6	14.1	13.4	12.6	13.4	13.0	11.8	13.4	12.9	13.9	13.9
Av. Diff.**	-0.2	+0.1	-0.3	-0.5	-0.3	0.0	-0.5	-0.4	-0.2	0.0	-0.5
Max. Diff.***	-0.4	+0.5	-0.6	-0.8	-0.8	+0.2	-0.8	-0.6	-0.4	+0.4	-0.7
Bursting Strength											
Institute	105	107	108	105	102	102	104	109	107	109	103
Mill	109	105	112	106	105	103	107	113	104	106	107
Av. Diff.**	+4	-2	+4	+1	+3	+1	+3	+4	-3	-3	+4
Max. Diff.***	+11	-7	+8	+9	+10	+3	+6	+6	-6	-8	+7
G. E. Puncture											
Institute	34	36	37	39	41	32	34	33	31	37	38
Mill	36	38	33	—	44	30	31	29	32	—	26
Av. Diff.**	+2	+2	-4	—	+3	-2	-3	-4	+1	—	-12
Max. Diff.***	+5	+4	-6	—	+7	-3	-5	-7	±2	—	-13
Tearing Strength, in											
Institute	339	365	364	397	396	293	368	350	371	366	376
Mill	349	339	340	391	395	277	342	352	376	300	368
Av. Diff. **	+10	-26	-24	-6	-1	-16	-26	+2	+5	-66	- 8
Max. Diff.***	+35	-71	-45	-30	-68	-18	+80	+30	+45	-107	-66
Tearing Strength, cross											
Institute	370	420	407	421	433	337	389	408	380	393	411
Mill	383	400	400	431	442	325	378	402	383	364	442
Av. Diff.**	+13	-20	-7	+10	+9	-12	-11	-6	+3	-29	+31
Max. Diff.***	+37	-37	+55	+39	+36	-32	+55	+36	+28	-67	+147

* Comparison based on averages involves only those samples on which mill test data were submitted.

** Average difference is the difference between the Institute mill average and the mill average based on mill test data.

*** Maximum difference encountered in comparing the Institute average and the mill average for any sample submitted by that particular mill.

TABLE XIX

SUMMARY OF TEST RESULTS—COMPARISON BY PERIODS

	Average Difference, %					
	Basis Weight	Caliper	Bursting Strength	G. E. Puncture	Tearing Strength in	Tearing Strength across
Mill A						
Current period	-0.5	-2	+4	+6	+3	+4
53rd period	-1	-0.8	-4	+6	+4	+3
52nd period	0	+0.8	0	0	-0.3	+0.5
Mill B						
Current period	-0.5	+0.7	-2	+6	-7	-5
53rd period	-0.9	+0.8	-6	-12	-7	-4
52nd period	+0.2	0	0	+6	-6	-2
Mill C						
Current period	-0.9	-2	+4	-11	-7	-2
53rd period	-0.7	-3	-2	-6	-9	-8
52nd period	-1	-2	0	-14	-14	-8
Mill D						
Current period	-0.7	-4	+1	--	-2	+2
53rd period	+0.5	-4	-4	--	-1	+5
52nd period	+0.2	-4	0	--	-4	+0.5
Mill F						
Current period	+0.2	-2	+3	+7	-0.3	+2
53rd period	+0.5	-3	-3	+16	-0.8	+2
52nd period	-0.7	-4	-2	+17	+0.5	+6
Mill G						
Current period	-0.5	0	+1	-6	-5	-4
53rd period	+0.2	-0.7	+2	0	-8	-4
52nd period	+0.2	+0.8	+3	0	-14	-6
Mill H						
Current period	+0.7	-4	+3	-9	-7	-3
53rd period	+0.2	-2	+2	-6	-5	+1
52nd period	+2	-2	+6	-3	-8	-4
Mill I						
Current period	-1	-3	+4	-12	+0.6	-1
53rd period	+0.2	-2	+2	-6	-0.6	+6
52nd period	+0.9	0	+2	-3	+11	+9
Mill J						
Current period	+0.5	-2	-3	+3	+1	+0.8
53rd period	+0.9	-2	-6	+10	+1	+2
52nd period	+0.2	-2	-4	+3	-2	+3
Mill L						
Current period	-1	0	-3	--	-18	-7
53rd period	-0.7	0	+4	--	-7	-3
52nd period	-0.7	-0.7	+3	--	-12	-4
Mill M						
Current period	-3	-3	+4	-32	-2	+8
53rd period	-2	-4	-2	-37	-14	-10
52nd period	-0.7	-5	0	-15	+3	+1

TABLE XX

INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951

Institute Data versus Mill Data

f.	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
	Mill A--42-lb. Linerboard														
.4	12.8	12.6	-0.2	104	108	+ 4	30	34	+4	310	339	+29	338[a]	375	+37
.1	12.7	12.4	-0.3	105	108	+ 3	31	34	+3	307[a]	323	+16	334[a]	356	+22
.0	13.0	12.8	-0.2	103	108	+ 5	36	37	+1	361[a]	356	- 5	397[a]	391	- 6
.1	12.7	12.8	+0.1	114	109	- 5	35	36	+1	343	349	+ 6	413[a]	399	-14
.2	13.3	13.2	-0.1	113	110	- 3	36	39	+3	343	377	+34	405[a]	436	+31
.2	12.8	13.0	+0.2	110	108	- 2	37	37	0	352[a]	356	+ 4	404[a]	400	- 4
.0	12.3	12.2	-0.1	103	110	+ 7	35	39	+4	351[a]	351	0	366[a]	374	+ 8
.2	12.3	12.0	-0.3	105	110	+5	34	38	+4	337[a]	372	+35	390[a]	392	+ 2
.1	13.5	13.3	-0.2	98	109	+11	34	35	+1	341[a]	342	+ 1	375[a]	385	+10
.4	12.8	12.5	-0.3	103	109	+ 6	33	38	+5	331[a]	358	+27	367[a]	349	-18
.4	12.8	12.4	-0.4	100	111	+11	35	35	0	351[a]	328	-23	387[a]	371	-16
.3	12.7	12.4	-0.3	102	108	+ 6	32	36	+4	341[a]	333	- 8	347[a]	363	+16
.2	12.8	12.6	-0.2	105	109	+ 4	34	36	+2	339	349	+10	370	383	+13

specimens which tore beyond the 3/8-inch limit.

l from the totals of the individual readings.

TABLE XX

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units				
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mil
Mill A--42-lb. Linerboard																		
149157	A-296	WF1S	11/24/51	2	43.2	42.8	-0.4	12.8	12.6	-0.2	104	108	+ 4	30	34	+4	310	33
149211	A-297	WF1S	11/24/51	2	42.8	42.9	+0.1	12.7	12.4	-0.3	105	108	+ 3	31	34	+3	307[a]	32
149212	A-298	WF1S	11/25/51	2	44.1	43.1	-1.0	13.0	12.8	-0.2	103	108	+ 5	36	37	+1	361[a]	35
149234	A-299	WF1S	11/25/51	1	42.7	42.8	+0.1	12.7	12.8	+0.1	114	109	- 5	35	36	+1	343	34
149235	A-300	WF1S	12/ 2/51	1	43.2	43.0	-0.2	13.3	13.2	-0.1	113	110	- 3	36	39	+3	343	37
149246	A-301	WF1S	12/ 2/51	1	42.6	42.8	+0.2	12.8	13.0	+0.2	110	108	- 2	37	37	0	352[a]	35
149286	A-302	WF1S	12/11/51	2	42.6	42.6	0.0	12.3	12.2	-0.1	103	110	+ 7	35	39	+4	351[a]	35
149357	A-303	WF1S	12/11/51	2	42.8	42.6	-0.2	12.3	12.0	-0.3	105	110	+5	34	38	+4	337[a]	37
149362	A-304	WF1S	12/18/51	1	43.7	43.6	-0.1	13.5	13.3	-0.2	98	109	+11	34	35	+1	341[a]	34
149363	A-305	WF1S	12/18/51	2	43.2	42.8	-0.4	12.8	12.5	-0.3	103	109	+ 6	33	38	+5	331[a]	35
149405	A-306	WF1S	12/24/51	2	43.5	43.1	-0.4	12.8	12.4	-0.4	100	111	+11	35	35	0	351[a]	32
149406	A-307	WF1S	12/23/51	2	42.7	43.0	+0.3	12.7	12.4	-0.3	102	108	+ 6	32	36	+4	341[a]	33
Current Mill Average:					43.1	42.9	-0.2	12.8	12.6	-0.2	105	109	+ 4	34	36	+2	339	34

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXI

F INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

ight, Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	Elmendorf Tear, g./sheet In IPC	Mill	Diff.	Across IPC	Mill	Diff.
					Mill B--42-lb. Linerboard										
-0.7	13.7	13.6	-0.1	113	110	-3	34	38	+4	375[a]	304	-71	401[a]	367	-34
-0.7	13.6	13.6	0.0	107	110	+3	36	35	-1	334	301	-33	403[a]	368	-35
-0.8	13.5	13.8	+0.3	110	110	0	34	35	+1	344[a]	333	-11	418[a]	397	-21
-0.1	13.6	13.7	+0.1	111	109	-2	34	36	+2	365[a]	348	-17	393[a]	401	+ 8
-0.5	13.6	13.8	+0.2	110	108	-2	33	36	+3	351	325	-26	419[a]	392	-27
-0.3	13.6	13.6	0.0	112	105	-7	36	36	0	347[a]	337	-10	412[a]	393	-19
-0.4	13.6	13.6	0.0	109	105	-4	36	37	+1	369[a]	334	-35	411[a]	378	-33
-0.6	13.5	13.6	+0.1	105	104	-1	35	37	+2	342	337	- 5	396[a]	394	- 2
-0.1	13.8	13.9	+0.1	105	101	-4	36	38	+2	375[a]	341	-34	429[a]	409	-20
0.0	13.9	13.9	0.0	102	100	-2	36	38	+2	353	347	- 6	401[a]	409	+ 8
-0.0	13.8	13.8	0.0	104	101	-3	36	38	+2	383	331	-52	433[a]	413	-20
+0.2	13.7	13.7	0.0	104	100	-4	37	39	+2	393	341	-52	439[a]	392	-47
-0.1	14.9	15.1	+0.2	108	106	-2	38	42	+4	384[a]	383	- 1	448[a]	442	- 6
0.0	14.7	15.1	+0.4	108	104	-4	38	42	+4	362	352	-10	447[a]	409	-38
+0.1	15.0	15.0	0.0	103	105	+2	41	42	+1	385	352	-33	423[a]	423	0
+0.4	14.8	15.3	+0.5	105	104	-1	38	42	+4	381	354	-27	441[a]	421	-20
-0.2	14.0	14.1	+0.1	107	105	-2	36	38	+2	365	339	-26	420	400	-20

e specimens which tore beyond the 3/8-inch limit.

ated from the totals of the individual readings.

TABLE XXI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC
Mill B--42-lb. Linerboard																	
149171	B-507	WFIS	11/24/51	1	45.0	44.3	-0.7	13.7	13.6	-0.1	113	110	-3	34	38	+4	375[a]
149172	B-508	WFIS	11/24/51	1	44.9	44.2	-0.7	13.6	13.6	0.0	107	110	+3	36	35	-1	334
149173	B-509	WFIS	11/24/51	1	45.1	44.3	-0.8	13.5	13.8	+0.3	110	110	0	34	35	+1	344[a]
149174	B-510	WFIS	11/24/51	1	44.6	44.5	-0.1	13.6	13.7	+0.1	111	109	-2	34	36	+2	365[a]
149184	B-511	WFIS	11/25/51	1	44.8	44.3	-0.5	13.6	13.8	+0.2	110	108	-2	33	36	+3	351
149195	B-512	WFIS	11/25/51	1	44.7	44.4	-0.3	13.6	13.6	0.0	112	105	-7	36	36	0	347[a]
149196	B-513	WFIS	11/25/51	1	44.7	44.3	-0.4	13.6	13.6	0.0	109	105	-4	36	37	+1	369[a]
149197	B-514	WFIS	11/25/51	1	44.9	44.3	-0.6	13.5	13.6	+0.1	105	104	-1	35	37	+2	342
149323	B-515	WFIS	12/7/51	1	43.3	43.3	-0.1	13.8	13.9	+0.1	105	101	-4	36	38	+2	375[a]
149324	B-516	WFIS	12/7/51	1	43.2	43.2	0.0	13.9	13.9	0.0	102	100	-2	36	38	+2	353
149325	B-517	WFIS	12/7/51	1	43.0	42.9	-0.0	13.8	13.8	0.0	104	101	-3	36	38	+2	383
149326	B-518	WFIS	12/7/51	1	42.8	43.0	+0.2	13.7	13.7	0.0	104	100	-4	37	39	+2	393
149401	B-519	WFIS	12/15/51	1	45.0	44.9	-0.1	14.9	15.1	+0.2	108	106	-2	38	42	+4	384[a]
149402	B-520	WFIS	12/15/51	1	44.8	44.8	0.0	14.7	15.1	+0.4	108	104	-4	38	42	+4	362
149403	B-521	WFIS	12/15/51	1	44.9	45.0	+0.1	15.0	15.0	0.0	103	105	+2	41	42	+1	385
149404	B-522	WFIS	12/15/51	1	44.9	45.3	+0.4	14.8	15.3	+0.5	105	104	-1	38	42	+4	381
Current Mill Average:					44.4	44.2	-0.2	14.0	14.1	+0.1	107	105	-2	36	38	+2	365

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXII

OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

ght, Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	Elmendorf Tear, g./sheet In IPC	Elmendorf Tear, g./sheet In Mill	Elmendorf Tear, g./sheet In Diff.	Elmendorf Tear, g./sheet Across IPC	Elmendorf Tear, g./sheet Across Mill	Elmendorf Tear, g./sheet Across Diff.
Mill C--42-lb. Linerboard															
0.0	13.0	12.7	-0.3	114	120	+6	35	32	-3	371	329	-42	429[a]	407	-22
-0.3	13.5	13.2	-0.3	109	112	+3	35	33	-2	347[a]	322	-25	393[a]	386	- 7
0.0	13.5	13.3	-0.2	107	113	+6	37	32	-5	354[a]	341	-13	404[a]	378	-26
-0.4	14.1	13.8	-0.3	110	117	+7	39	33	-6	378[a]	342	-36	420[a]	405	-15
-0.5	14.2	13.6	-0.6	112	113	+1	37	33	-4	384	339	-45	421[a]	409	-12
-0.7	14.0	13.6	-0.4	109	105	-4	38	32	-6	360	352	- 8	401[a]	383	-18
-0.8	13.8	13.5	-0.3	101	109	+8	38	33	-5	367	378	+11	397[a]	452	+55
-0.1	13.4	13.3	-0.1	105	106	+1	36	34	-2	351	319	-32	392[a]	381	-11
-0.4	13.7	13.4	-0.3	108	112	+4	37	33	-4	364	340	-24	407	400	- 7

TABLE XXIII

Mill D--42-lb. Linerboard

-0.1	13.4	12.6	-0.8	110	112	+2	39	417[a]	392	-25	397[a]	418	+21
-0.7	14.2	13.5	-0.7	101	103	+2	40	419[a]	405	-14	400[a]	439	+39
-0.7	12.7	12.1	-0.6	100	109	+9	38	379[a]	381	+ 2	401[a]	414	+13
+0.2	12.8	12.5	-0.3	100	105	+5	38	377[a]	391	+14	405[a]	426	+21
-0.4	12.8	12.5	-0.3	95	100	+5	40	390[a]	382	- 8	423[a]	442	+19
-0.1	12.7	12.4	-0.3	112	109	-3	40	398[a]	404	+ 6	429[a]	447	+18
+0.2	13.9	13.6	-0.3	109	110	+1	42	421[a]	391	-30	458[a]	441	-17
-0.1	13.2	12.8	-0.4	100	102	+2	40	391[a]	390	- 1	437[a]	420	-17
-0.6	12.9	12.3	-0.6	106	103	-3	41	403[a]	385	-18	428[a]	428	0
-0.4	12.5	12.0	-0.5	112	110	-2	39	369[a]	382	+13	436[a]	425	-11
-0.5	12.7	12.1	-0.6	110	107	-3	37	407[a]	394	-13	419[a]	437	+18
-0.3	13.1	12.6	-0.5	105	106	+1	39	397	391	- 6	421	431	+10

TABLE XXIV

Mill E--42-lb. Linerboard

re No samples submitted.

ted from the totals of the individual readings.

TABLE XXII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC
Mill C--42-lb. Linerboard																	
149365	C-331	W.F.	12/5/51	1	41.4	41.4	0.0	13.0	12.7	-0.3	114	120	+6	35	32	-3	371
149413	C-332	W.F.	12/20/51	1	43.2	42.9	-0.3	13.5	13.2	-0.3	109	112	+3	35	33	-2	347
149414	C-333	W.F.	12/20/51	1	43.8	43.8	0.0	13.5	13.3	-0.2	107	113	+6	37	32	-5	354
149415	C-334	W.F.	12/20/51	1	44.6	44.2	-0.4	14.1	13.8	-0.3	110	117	+7	39	33	-6	378
149416	C-335	W.F.	12/20/51	1	44.7	44.2	-0.5	14.2	13.6	-0.6	112	113	+1	37	33	-4	384
149417	C-336	W.F.	12/20/51	1	43.0	42.3	-0.7	14.0	13.6	-0.4	109	105	-4	38	32	-6	360
149418	C-337	W.F.	12/20/51	1	43.4	42.6	-0.8	13.8	13.5	-0.3	101	109	+8	38	33	-5	367
149418	C-338	W.F.	12/23/51	1	41.9	41.8	-0.1	13.4	13.3	-0.1	105	106	+1	36	34	-2	351
Current Mill Average:					43.3	42.9	-0.4	13.7	13.4	-0.3	108	112	+4	37	33	-4	364

TABLE XXIII

Mill D--42-lb. Linerboard

149188	D-475	D.F.	11/30/51	4	42.6	42.5	-0.1	13.4	12.6	-0.8	110	112	+2	39			417
149189	D-476	D.F.	12/ 1/51	4	43.6	42.9	-0.7	14.2	13.5	-0.7	101	103	+2	40			419
149190	D-477	W.F.	12/2/51	4	43.3	42.6	-0.7	12.7	12.1	-0.6	100	109	+9	38			379
149193	D-478	W.F.	12/3/51	4	42.5	42.7	+0.2	12.8	12.5	-0.3	100	105	+5	38			377
149194	D-479	W.F.	12/ 4/51	4	42.5	42.1	-0.4	12.8	12.5	-0.3	95	100	+5	40			390
149213	D-480	W.F.	12/5/51	4	43.8	43.7	-0.1	12.7	12.4	-0.3	112	109	-3	40			398
149361	D-481	D.F.	12/17/51	4	44.0	44.2	+0.2	13.9	13.6	-0.3	109	110	+1	42			421
149364	D-482	W.F.	12/20/51	4	43.5	43.4	-0.1	13.2	12.8	-0.4	100	102	+2	40			391
149373	D-483	W.F.	12/21/51	4	43.8	43.2	-0.6	12.9	12.3	-0.6	106	103	-3	41			403
149374	D-484	W.F.	12/22/51	4	43.2	42.8	-0.4	12.5	12.0	-0.5	112	110	-2	39			369
149375	D-485	W.F.	12/23/51	4	44.2	43.7	-0.5	12.7	12.1	-0.6	110	107	-3	37			407
Current Mill Average:					43.4	43.1	-0.3	13.1	12.6	-0.5	105	106	+1	39			397

TABLE XXIV

Mill E--42-lb. Linerboard

No samples submitted.

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

Table XXV

RY OF INDIVIDUAL TEST LOTS --DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

sis Weight lb.		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
											In			Across		
Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	EPC	Mill	Diff.
Mill F -- 42-lb. Linerboard																
43.0	+0.6	13.2	12.9	-0.3	103	109	+6	41	41	0	389[a]	415	+26	430[a]	464	+34
42.4	+0.6	13.4	13.0	-0.4	95	102	+7	38	41	+3	349[a]	395	+46	401[a]	437	+36
42.7	+0.3	13.8	13.6	-0.2	99	102	+3	40	47	+7	362	380	+18	433[a]	451	+18
43.4	+0.3	13.2	13.0	-0.2	107	107	0	41	46	+5	395[a]	387	- 8	437[a]	445	+ 8
43.1	0.0	14.2	13.8	-0.4	102	108	+6	40	45	+5	404	396	- 8	431[a]	432	+ 1
43.0	+0.2	14.1	13.6	-0.5	97	106	+9	40	43	+3	390	373	-17	421[a]	425	+ 4
43.8	-1.2	14.2	13.4	-0.8	102	112	+10	44	41	-3	419[a]	351	-68	431[a]	396	-35
43.6	+0.9	13.5	13.4	-0.1	98	105	+7	44	48	+4	422[a]	427	+ 5	448[a]	465	+17
44.9	-0.5	13.8	13.5	-0.3	105	104	-1	44	46	+2	417[a]	421	+ 4	454[a]	461	+ 7
43.3	-0.4	13.2	13.3	+0.1	109	107	-2	41	45	+4	409[a]	405	- 4	451[a]	441	-10
42.6	-0.3	13.6	13.6	0.0	101	98	-3	40	44	+4	398[a]	400	+ 2	422[a]	443	+21
43.3	+0.1	13.7	13.4	-0.3	102	105	+3	41	44	+3	396	395	- 1	433	442	+ 9

or more specimens which tore beyond the 3/8-inch limit.

calculated from the totals of the individual readings.

Table XXV

SUMMARY OF INDIVIDUAL TEST LOTS --DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			I.
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	
Mill F -- 42-lb. Linerboard																	
149236	F-94	W.F.	11/13/51	-	42.4	43.0	+0.6	13.2	12.9	-0.3	103	109	+6	41	41	0	38
149237	F-95	W.F.	11/28/51	-	41.8	42.4	+0.6	13.4	13.0	-0.4	95	102	+7	38	41	+3	34
149241	F-96	--	11/29/51	-	42.2	42.7	+0.5	13.8	13.6	-0.2	99	102	+3	40	47	+7	36
149282	F-97	--	11/30/51	-	42.9	43.4	+0.5	13.2	13.0	-0.2	107	107	0	41	46	+5	39
149283	F-98	--	12/6/51	-	43.1	43.1	0.0	14.2	13.8	-0.4	102	108	+6	40	45	+5	40
149284	F-99	W.F.	12/7/51	-	42.8	43.0	+0.2	14.1	13.6	-0.5	97	106	+9	40	43	+3	39
149285	F-100	W.F.	12/12/51	-	45.0	43.8	-1.2	14.2	13.4	-0.8	102	112	+10	44	41	-3	41
149407	F-101	W.F.	12/19/51	-	42.7	43.6	+0.9	13.5	13.4	-0.1	98	105	+7	44	48	+4	42
149408	F-102	W.F.	12/19/51	-	45.4	44.9	-0.5	13.8	13.5	-0.3	105	104	-1	44	46	+2	41
149409	F-103	W.F.	12/20/51	-	43.7	43.3	-0.4	13.2	13.3	+0.1	109	107	-2	41	45	+4	40
149410	F-104	W.F.	12/21/51	-	42.9	42.6	-0.3	13.6	13.6	0.0	101	98	-3	40	44	+4	39
Current Mill Average:					43.2	43.3	+0.1	13.7	13.4	-0.3	102	105	+3	41	44	+3	39

[a]This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

T.BLE XXVI

RY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)
Institute Data versus Mill Data

Weight,		Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet In			Elmendorf Tear, g./sheet Across		
ll	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	I+C	Mill	Diff.
					Mill G--42-lb. Linerboard											
L.8	-0.1	13.0	12.9	-0.1	106	104	-2	32	30	-2	286	268	-18	319[a]	326	+ 7
L.7	-0.4	13.0	13.2	+0.2	99	102	+3	33	30	-3	299	285	-14	356[a]	324	-32
L.8	-0.2	13.0	13.0	0.0	102	103	+1	32	30	-2	293	277	-16	337	325	-12

TABLE XXVII

Mill H--42-lb. Linerboard

5.9	+0.8	12.1	11.8	-0.3	104	104	0	31	30	-1	349[a]	369	+20	373[a]	396	+23
5.1	+0.7	12.2	11.9	-0.3	98	102	+4	31	28	-3	331	308	-23	359[a]	348	-11
5.1	+0.1	12.0	11.8	-0.2	102	106	+4	34	30	-4	343	303	-40	373[a]	343	-30
5.1	0.0	12.3	11.6	-0.7	103	109	+6	34	31	-3	369[a]	334	-35	389[a]	365	-24
5.2	0.0	12.4	11.6	-0.8	107	109	+2	34	31	-3	395	345	-50	399[a]	379	-20
5.0	+0.3	12.4	12.0	-0.4	105	105	0	35	33	-2	400[a]	334	-66	393[a]	381	-12
5.2	+0.2	12.8	12.2	-0.6	102	105	+3	36	32	-4	348[a]	428	+80	403[a]	458	+55
5.1	0.0	12.5	11.9	-0.6	105	108	+3	37	32	-5	398[a]	347	-51	413[a]	380	-33
5.2	+0.3	12.0	11.5	-0.5	111	112	+1	34	30	-4	359	303	-56	401[a]	349	-52
5.4	+0.9	12.0	11.5	-0.5	105	111	+6	34	30	-4	351	315	-36	390[a]	359	-31
5.1	+0.3	12.8	12.0	-0.8	107	106	-1	37	34	-3	411[a]	374	-37	387[a]	405	+18
5.7	+0.3	12.3	11.8	-0.5	104	107	+3	34	31	-3	368	342	-26	389	378	-11

r more specimens which tore beyond the 3/8-inch limit.

culated from the totals of the individual readings.

TABLE XXVI

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)
Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Basis Weight, lb. Mill	Basis Weight, lb. Diff.	Caliper, points IPC	Caliper, points Mill	Caliper, points Diff.	Bursting Strength, p.s.i. gage IPC	Bursting Strength, p.s.i. gage Mill	Bursting Strength, p.s.i. gage Diff.	G. E. Puncture, units IPC	G. E. Puncture, units Mill	G. E. Puncture, units Diff.	IPC
									Mill G--42-lb. Linerboard								
149238	G-386	WFL	12/ 4/51	1	41.9	41.8	-0.1	13.0	12.9	-0.1	106	104	-2	32	30	-2	28(
149239	G-387	WFL	12/ 4/51	1	42.1	41.7	-0.4	13.0	13.2	+0.2	99	102	+3	33	30	-3	29(
Current Mill Average:					42.0	41.8	-0.2	13.0	13 0	0.0	102	103	+1	32	30	-2	29

TABLE XXVII

Mill H--42-lb. Linerboard

149185	H-295	WF1S	11/ 5/51	2	43.1	43.9	+0.8	12.1	11.8	-0.3	104	104	0	31	30	-1	34
149186	H-296	WF1S	11/ 6/51	2	42.4	43.1	+0.7	12.2	11.9	-0.3	98	102	+4	31	28	-3	33
149187	H-297	WF1S	11/12/51	2	44.0	44.1	+0.1	12.0	11.8	-0.2	102	106	+4	34	30	-4	34
149230	H-298	WF1S	11/13/51	2	43.1	43.1	0.0	12.3	11.6	-0.7	103	109	+6	34	31	-3	36
149231	H-299	WF1S	11/18/51	2	43.2	43.2	0.0	12.4	11.6	-0.8	107	109	+2	34	31	-3	39
149232	H-300	WF1S	11/19/51	2	43.7	44.0	+0.3	12.4	12.0	-0.4	105	105	0	35	33	-2	40
149233	H-301	WF1S	11/26/51	2	44.0	44.2	+0.2	12.8	12.2	-0.6	102	105	+3	36	32	-4	34
149376	H-302	WF1S	12/2/ 51	2	44.1	44.1	0.0	12.5	11.9	-0.6	105	108	+3	37	32	-5	39
149377	H-303	WF1S	12/3/ 51	2	42.9	43.2	+0.3	12.0	11.5	-0.5	111	112	+1	34	30	-4	35
149378	H-304	WF1S	12/10/51	2	42.5	43.4	+0.9	12.0	11.5	-0.5	105	111	+6	34	30	-4	35
149379	H-305	WF1S	12/11/51	2	43.8	44.1	+0.3	12.8	12.0	-0.8	107	106	-1	37	34	-3	41
Current Mill Average:					43.4	43.7	+0.3	12.3	11.8	-0.5	104	107	+3	34	31	-3	36

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXVIII

DIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data *versus* Mill Data

Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
									In			Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
			Mill I--42-lb. Linerboard											
13.6	13.3	-0.3	109	115	+6	32	27	-5	343[a]	345	+2	413[a]	395	-18
13.6	13.4	-0.2	106	111	+5	33	26	-7	355	346	-9	402[a]	399	- 3
13.8	13.4	-0 4	109	108	-1	33	30	-3	354[a]	340	-14	415[a]	381	-34
14.1	13.5	-0.6	112	118	+6	35	32	-3	349	379	+30	399[a]	435	+36
13.8	13.4	-0.4	109	113	+4	33	29	-4	350	352	+2	408	402	- 6

TABLE XXIX

			Mill J--42-lb. Linerboard											
12.7	12.8	+0.1	113	110	-3	28	30	+2	367[a]	357	-10	351[a]	371	+20
12 9	12.5	-0.4	109	110	+1	28	30	+2	352	365	+13	360[a]	378	+18
12.9	12.9	0.0	109	104	-5	32	31	-1	363[a]	408	+45	379[a]	370	- 9
12 6	12 2	-0.4	108	104	-4	32	32	0	359[a]	381	+22	375[a]	356	-19
13.3	13.2	-0.1	109	103	-6	33	33	0	407[a]	370	-37	417[a]	395	-22
13.3	13 1	-0.2	106	101	-5	31	32	+1	378[a]	370	- 8	393[a]	389	- 4
13.4	13.3	-0.1	103	102	-1	34	32	-2	375[a]	382	+ 7	383[a]	411	+28
13.5	13 3	-0.2	102	100	-2	33	34	+1	369[a]	373	+ 4	381[a]	395	+14
13.1	12 9	-0.2	107	104	-3	31	32	+1	371	376	+ 5	380	383	+ 3

ecimens which tore beyond the 3/8-inch limit.

m the totals of the individual readings.

TABLE XXVIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	IPC
											Mill I--42-lb. Linerboard						
149244	I-210	WF1S	12/ 3/51	1	42.8	42.4	-0.4	13.6	13.3	-0.3	109	115	+6	32	27	-5	343[a]
149240	I-211	WF1S	12/ 4/51	1	42.7	42.5	-0.2	13.6	13.4	-0.2	106	111	+5	33	26	-7	355
149288	I-212	WF1S	12/8 /51	1	43.2	42.6	-0.6	13.8	13.4	-0.4	109	108	-1	33	30	-3	354[a]
149366	I-213	WF1S	12/14/51	1	43.1	42.7	-0.4	14.1	13.5	-0.6	112	118	+6	35	32	-3	349
Current Mill Average:					43.0	42.5	-0.5	13.8	13.4	-0.4	109	113	+4	33	29	-4	350

TABLE XXIX

											Mill J--42-lb. Linerboard						
149155	J-317	B.F.	11/25/51	1	42.2	42.5	+0.3	12.7	12.8	+0.1	113	110	-3	28	30	+2	367[a]
149156	J-318	B.F.	11/25/51	1	42.2	42.7	+0.5	12.9	12.5	-0.4	109	110	+1	28	30	+2	352
149278	J-319	--	12/ 3/51	1	42.2	42.8	+0.6	12.9	12.9	0.0	109	104	-5	32	31	-1	363[a]
149279	J-320	--	12/ 3/51	1	42.8	43.1	+0.3	12.6	12.2	-0.4	108	104	-4	32	32	0	359[a]
149358	J-321	B.F.	12/10/51	1	44.0	44.1	+0.1	13.3	13.2	-0.1	109	103	-6	33	33	0	407[a]
149359	J-322	B.F.	12/10/51	1	43.0	42.9	-0.1	13.3	13.1	-0.2	106	101	-5	31	32	+1	378[a]
149420	J-323	B.F.	12/14/51	1	42.9	43.0	+0.1	13.4	13.3	-0.1	103	102	-1	34	32	-2	375[a]
149421	J-324	B.F.	12/14/51	1	42.8	42.8	0.0	13.5	13.3	-0.2	102	100	-2	33	34	+1	369[a]
Current Mill Average:					42.8	43.0	+0.2	13.1	12.9	-0.2	107	104	-3	31	32	+1	371

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXX

OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

t	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
										In			Across		
iff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
				Mill K--42-lb. Linerboard											
				No samples submitted.											

TABLE XXXI

Mill L--42-lb. Linerboard

0.9	13.3	13.7	+0.4	106	103	-3	36	359[a]	298	-61	391[a]	358	-33
0.0	13.8	13.6	-0.2	108	104	-4	36	353[a]	286	-67	375[a]	345	-30
0.3	13.9	14.2	+0.3	119	116	-3	37	379[a]	317	-62	404[a]	382	-22
0.5	13.8	13.8	0.0	105	108	+3	37	356[a]	344	-12	381[a]	406	+25
1.2	14.0	13.9	-0.1	110	102	-8	37	346[a]	256	-90	397[a]	330	-67
0.8	14.5	14.2	-0.3	105	105	0	38	405[a]	298	-107	410[a]	363	-47
0.6	13.9	13.9	0.0	109	106	-3	37	366	300	-66	393	364	-29

re specimens which tore beyond the 3/8-inch limit.

ed from the totals of the individual readings.

TABLE XXX

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight lb. IPC	Mill	Diff.	Caliper, points IPC	Mill	Diff.	Bursting Strength, p.s.i. gage IPC	Mill	Diff.	G. E. Puncture, units IPC	Mill	Diff.	IPC	Mil
Mill K--42-lb. Linerboard																		
No samples submitted.																		
TABLE XXXI																		
Mill L--42-lb. Linerboard																		
149367	L-53		11/18/51	1	42.8	41.9	-0.9	13.3	13.7	+0.4	106	103	-3	36			359[a]	29
149368	L-54		11/19/51	1	43.0	43.0	0.0	13.8	13.6	-0.2	108	104	-4	36			353[a]	28
149369	L-55		11/30/51	1	43.6	43.3	-0.3	13.9	14.2	+0.3	119	116	-3	37			379[a]	31
149370	L-56		12/ 7/51	1	43.0	42.5	-0.5	13.8	13.8	0.0	105	108	+3	37			356[a]	34
149371	L-57		12/12/51	1	43.6	42.4	-1.2	14.0	13.9	-0.1	110	102	-8	37			346[a]	25
149372	L-58		12/12/51	1	43.1	42.3	-0.8	14.5	14.2	-0.3	105	105	0	38			405[a]	29
Current Mill Average:					43.2	42.6	-0.6	13.9	13.9	0.0	109	106	-3	37			366	30

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXII

DIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
									In			Across		
IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill M--42-lb. Linerboard														
15.3	15.0	-0.3	103	109	+6	37	27	-10	384[a]	398	+14	413[a]	429	+16
15.6	14.9	-0.7	106	108	+2	42	32	-10	395	335	-60	466[a]	510	+44
15.3	14.9	-0.4	104	110	+6	40	29	-11	409[a]	435	+26	425[a]	526	+101
13.9	13.6	-0.3	108	110	+2	38	27	-11	394[a]	459	+65	396[a]	543	+147
14.3	13.6	-0.7	94	98	+4	38	26	-12	417	384	-33	423[a]	364	-59
13.1	12.4	-0.7	105	112	+7	36	24	-12	355	311	-44	399[a]	390	- 9
14.0	13.3	-0.7	103	108	+5	34	22	-12	339[a]	273	-66	381[a]	336	-45
14.0	13.6	-0.4	105	105	0	36	23	-13	320	348	+28	381[a]	441	+60
14.4	13.9	-0.5	103	107	+4	38	26	-12	376	368	- 8	411	442	+31

ecimens which tore beyond the 3/8-inch limit.

rom the totals of the individual readings.

TABLE XXXII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units				
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill
										Mill M--42-lb. Linerboard								
149175	M-52	D.	11/25/51	2	43.9	41.8	-2.1	15.3	15.0	-0.3	103	109	+6	37	27	-10	384[a]	39
149176	M-53	D.	11/27/51	2	44.2	42.6	-1.6	15.6	14.9	-0.7	106	108	+2	42	32	-10	395	33
149242	M-54	D.	12/ 5/51	2	43.5	42.9	-0.6	15.3	14.9	-0.4	104	110	+6	40	29	-11	409	43
149243	M-55	W.	12/ 5/51	2	43.2	43.5	+0.3	13.9	13.6	-0.3	108	110	+2	38	27	-11	394[a]	45
149355	M-56	W.	12/10/51	4	43.9	42.2	-1.7	14.3	13.6	-0.7	94	98	+4	38	26	-12	417	38
149356	M-57	W.	12/12/51	2	42.4	41.3	-1.1	13.1	12.4	-0.7	105	112	+7	36	24	-12	355	31
149411	M-58	W.	12/16/51	2	43.9	42.0	-1.9	14.0	13.3	-0.7	103	108	+5	34	22	-12	339[a]	27
149412	M-59	W.	12/17/51	2	42.8	42.2	-0.6	14.0	13.6	-0.4	105	105	0	36	23	-13	320	34
Current Mill Average:					43.5	42.3	-1.2	14.4	13.9	-0.5	103	107	+4	38	26	-12	376	36

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.

TABLE XXXIII

INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

	Caliper, points			Bursting Strength, p.s.i. gage			G. E. Puncture, units			Elmendorf Tear, g./sheet					
										In			Across		
	IPC	Mill	Diff.	IPC	Mill	Diff	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.
Mill E--44/46-lb. Drum Linerboard															
3	14.5	12.8	-1.7	93	98	+5	30	29	-1	380[a]	342	-38	323[a]	320	-3
4	14.9	13.1	-1.8	100	100	0	40	44	+4	461[a]	445	-16	411[a]	442	+31
3	14 6	13.2	-1.4	106	102	-4	41	44	+3	455[a]	405	-50	428[a]	390	-38
1	15.2	13.2	-2.0	92	92	0	41	40	-1	435[a]	393	-42	431[a]	331	-100
3	14 5	12.5	-2.0	101	98	-3	36	39	+3	453[a]	361	-92	391[a]	338	-53
2	14 1	12 7	-1.4	93	102	+9	42	39	-3	503[a]	426	-77	443[a]	411	-32
1	14.6	12.9	-1.7	98	99	+1	38	39	+1	448	395	-53	405	372	-33

specimens which tore beyond the 3/8-inch limit.

from the totals of the individual readings.

TABLE XXXIII

SUMMARY OF INDIVIDUAL TEST LOTS--DECEMBER 1 THROUGH 31, 1951 (continued)

Institute Data versus Mill Data

File No.	Mill Code	Finish	Date Made	Mch. No.	Basis Weight, lb.			Caliper, points			Bursting Strength, p s.i. gage			G. E. Puncture, units			Tensile,
					IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC	Mill	Diff.	IPC
								Mill E--44/46-lb. Drum Linerboard									
149152	E-294	W.F.	11/29/51	1	45.5	44.2	-1.3	14.5	12.8	-1.7	93	98	+5	30	29	-1	380[a]
149198	E-295	W.F	12/ 3/51	1	50 2	48.8	-1.4	14.9	13.1	-1.8	100	100	0	40	44	+4	461[a]
149247	E-296	W.F.	12/ 7/51	1	50.4	49.1	-1.3	14.6	13.2	-1.4	106	102	-4	41	44	+3	455[a]
149261	E-297	W.F.	12/10/51	1	49.4	48.3	-1.1	15.2	13.2	-2.0	92	92	0	41	40	-1	435[a]
149287	E-298	W.F.	12/13/51	1	46.5	44.7	-1.8	14.5	12.5	-2.0	101	98	-3	36	39	+3	453[a]
149360	E-299	W F.	12/17/51	1	50.2	50.4	+0.2	14.1	12.7	-1.4	93	102	+9	42	39	-3	503[a]
Current Mill Average:					48.7	47.6	-1.1	14.6	12.9	-1.7	98	99	+1	38	39	+1	448

[a] This average includes the readings for one or more specimens which tore beyond the 3/8-inch limit.

Note: All "current mill average" data are calculated from the totals of the individual readings.